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EXTRAORDINARY EXPULSION OF A LARGE CYSTIC CALCULUS DURING LIFE.

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THE existence of stone in the bladder may be much more frequent among domestic animals than is generally supposed. The symptoms of cystic calculus do not always attract sufficient attention from the owners of such animals, nor from their attendants; and it may be that the difficulty and frequency of micturition, especially in the horse, is set down to some trifling derangement—"only something wrong with the water"—for which a dose of the everlasting "nitre" is administered. The months, perhaps years, of agony which unfortunate creatures must suffer from the presence of calculi in the bladder, can only be ascertained when they have perished through the effects of these, and found their way to the knacker's premises, which are generally an excellent source for procuring specimens of cystic as well as intestinal calculi.

The cystic calculi have a purely mechanical action, and this is most marked during micturition, or in the attempts to micturate, when the stones are somewhat large: the symptoms being then unmistakable, and different to those observed when the kidneys or ureters contain these deposits, as has been judiciously remarked by Verheyen. But this mechanical action is somewhat subordinate to their physical constitution. The symptoms are as much more intense as the stone is rough on its surface, heavy

and voluminous, and as its contact with the neck of the bladder —the most sensitive part of this organ—becomes closer. Small, round, smooth calculi may cause but little, if any, inconvenience, and especially if imbedded, as it were, in the mucous membrane. But even when small, and when they are movable, they may cause great inconvenience by passing into the urethra, or lodging momentarily in the neck of the bladder, producing spasm of that part, and more or less obstruction to the flow of urine. The horse manifests uneasiness, repeatedly places himself in a position to micturate, makes urgent and painful attempts to do so, and exhibits other unequivocal symptoms. These attempts or attacks may continue for several hours, all at once cease, and a quantity of urine be evacuated—the calculus has been transferred to the fundus of the bladder. Sometimes a sudden change of position during the straining will induce as prompt evacuation. The pawing, quivering of the tail, and spasmodic contractions of the rectum, vulva, and perinæum, are more or less reflex movements testifying to the irritation produced by the obstructing body. In the mare, the contractions of the vulva and the efforts of the animal, propel the apparently dilated urethra almost to the commencement of the vagina, and in some cases a small quantity of urine—often streaked with blood—trickles away during the succession of contractions. Incontinence of urine is also a symptom of cystic calculus in the mare. When the calculus is voluminous, there is not unfrequently lameness of a hind limb.

At rest there is usually less difficulty in micturating ; but when there has been rapid or severe movement, the embarrassment and pain are evidently more acute, especially if the calculus be rough or granular-surfaced (*mulberry calculus*), and the urine may be tinged with blood.

The interior of the bladder, indeed the whole organ, is more or less altered by the presence of a mulberry calculus. The mucous membrane becomes inflamed, thickened, suppurating and ulcerated, and the muscular tunic is hypertrophied. Not unfrequently the calculus is attached to a portion of the mucous lining by means of a fibrinous exudation, which becomes a false membrane.

Of course, a manual exploration of the bladder, *per rectum*, when the symptoms of cystic calculus are marked, reveals the state of affairs, the stone being usually felt near the cervix, if the bladder is empty; and the manipulation does not seem to cause any pain, unless there is inflammation of the cervix. But it may be as well to note that the calculus is not always in the pelvic portion of the bladder, but nearly as often lies in the fundus, to which it is attached, and which it drags down beyond the brim of the pubis. In such a case, some doubt might exist as to the mass being a calculus, and it might be mistaken for a vesical tumour. But a metallic sound will remove any hesitation which might arise in arriving at a correct diagnosis.

The result of calculus in the bladder, if the stone is not removed by natural or surgical means, is generally fatal. The bladder either ruptures from over-distension, and its contents escape into the peritoneal cavity; or the great pain and distress the animal experiences throw it into a state of Marasmus, in which it miserably succumbs. It is rare indeed—so rare that I cannot at this moment discover the record of a case—that when the calculus has attained a certain size it is expelled by the natural efforts of the animal. Such expulsion is, of course, more likely to occur in the mare than the horse; yet it must be extremely unfrequent in the former, when the stone is of considerable magnitude; and it is this remarkable rarity which induces me to offer these preliminary remarks to the instance I venture to direct attention to.

On September 16th, I received a calculus from Veterinary Surgeon J. Hanly, 4th Dragoon Guards, stationed at Aldershot, and recently from York. Accompanying it was a brief note stating that it had been voided by a horse on the line of march. A glance told that it was cystic, but its dimensions were so great that I could not believe it had been expelled by a *horse*. I wrote for particulars, and Mr. Hanly courteously afforded me the following circumstantial narrative. He writes: "You are quite right with reference to the calculus being cystic, and I am pleased to give you a perfectly authentic history. Troop mare, F. 47, fourteen years old, was admitted on July 14th for Asthenia—not feeding well, and in poor condition." He then notes the

treatment adopted. "The animal improved and came on line of march (in August). It was observed that she fell down occasionally, and after a few seconds rose again. This happened most frequently when micturating. On the march the urine was observed to be often dribbling away, that the hind legs were abducted, and that there were occasionally tremulous movements of the hind quarters. A dragoon named Wallace had charge of the mare, and three days previous to the passing of the stone he noticed frequent straining, as if trying to pass more urine, and that there was a good deal of sweating. The appetite was good, but the animal was thin. Dragoon Cartwright, who is an intelligent and trustworthy man, next had charge of the mare. He states that he noticed at morning stables, and during the day, that the animal appeared to be in pain and perpetually straining, the tremulous movements of the hind legs being most noticeable; her appetite was good. At evening stables he saw her pass the calculus from the urethra, and afterwards she drank three buckets-full of water. She was evidently easier; the perspiring and dribbling of urine ceased; improvement was rapid, and she is now at work, and doing well. No particular symptoms were noticed after the calculus was passed."

Mr. Hanly adds that he has made a most careful examination of the urethra, and finds everything in a normal condition.

The calculus is about the dimensions and shape of a good-sized goose's egg. It weighs 6¾ ounces, and measures 7⅛ inches in circumference transversely, and 8 inches longitudinally. Its surface is exceedingly rough and granular—mulberry-like, in fact, except at both ends. One of these, which, I believe, was the posterior, and corresponded to the cervix of the bladder, is not so granular; while the other end is quite smooth, and in all probability was more or less firmly attached to the fundus of the bladder by false membrane.

Such a voluminous calculus, it is needless to say, could never have been voided by a horse; and even when we reflect that the urethra of the mare—from its greater width, shortness and directness—offers readier passage for small calculi, yet it is quite marvellous how so large a mass, rugged and resisting as it is, could have found exit by such a narrow canal. The enormous

expulsive powers of the mare—well exemplified in parturition—could alone have enabled her to overcome the resistance this calculus met with in its course through the neck of the bladder and in the urethra. But what excruciating pain she must have endured for long months, and what terrible torture during the expulsion of this *pierre infernale!*

SURGICAL AND PATHOLOGICAL NOTES.

BY J. WOODROFFE HILL, F.R.C.V.S., WOLVERHAMPTON, PROFESSOR OF VETERINARY SURGERY AND MEDICINE AT THE WILTS AND HANTS AGRICULTURAL COLLEGE, DOWNTON.

Gelatinous Degeneration after Neurotomy. Fracture of the Navicular Bone.

ON the 27th of last March I was requested by Mr. Henry Bolton, of Codsall, to give my advice as to the lameness of a well-bred hackney mare, six years old. I pronounced it Naviculararthritis in an advanced stage, and recommended rest, and blisters on both coronets, and subsequently neurotomy, which I should have preferred performing at once had not Mr. Bolton wished to avoid it if possible.

On the 22nd of May, little or no improvement having taken place, he consented to the operation. I had recourse to the high one in each fore leg, and the mare walked to her stable sound.

On the 23rd of July she was put into the breaker's hands, prior to being driven in an ordinary vehicle. After this Mr. Bolton drove her himself. She continued sound for some time, when, during play, she became a little lame on the near fore leg; this being observed to be aggravated one day on starting on a journey, the mare was turned back and thrown aside.

On the 21st of August, at Mr. Bolton's desire, I saw her. She was then in a meadow. I found the foot turned upwards, and the animal walking on what is usually termed the hollow of the heel. Considerable swelling of a doughy nature existed all round the top of the hoof, and as high as the fetlock joint. There was also separation between the hoof and coronet in front. The mare had otherwise wonderfully improved in condition, and exhibited no signs of pain; neither, though the condition of the foot grew

worse, did she lose the former or manifest the latter at any time before being slaughtered, which was done on September 15th.

A *post-mortem* examination revealed, to use Professor Williams's words, " fracture of the navicular bone, sloughing of the hoof, and a peculiar gelatinous degeneration of the bursa, tendon, and surrounding structures, along with the formation of a large quantity of a low form of fibrous tissue." Indeed, owing to this latter, it was impossible to remove the skin by itself, and the degenerative process was so extensive that all the structures seemed conglomerated together in one mass of greyish-white, gluey, cartilaginous matter. Even the nerves were involved in the deposit, and with great difficulty were dissected free. The flexor perforans tendon was ulcerated and gelatinised on that part of its inner surface passing under the navicular bone, and for some distance above. The navicular bone was, in point of fact, precisely the same in condition as that described by Professor Williams. " Externally, its postero-inferior surface presented no distinct traces of ulceration; the cartilage was absorbed, and the bone presented a vascular, dirty-brown appearance, and its articular cartilage was covered over by a vascular membrane, the processes of which could be distinctly seen penetrating the structure of the bone, and extending over more than one-third of the bursal surface. The bone was fractured at about half an inch from its right extremity."

The navicular bone of the opposite foot was considerably more advanced in disease, there being both destruction of cartilage, and cavities exposing the interior of the bone. This is the only untoward result I have experienced after performing neurotomy

Laminitis (Cow).

On the 21st of August last I visited, by the request of Mrs. Masfen, of Pendeford, a heavy-framed milch cow of the shorthorn breed, relative to her inability to stand. With some difficulty I induced her to rise, when she presented all the symptoms usually seen in a horse with Laminitis. The feet were intensely hot, particularly the fore ones, the soles of which, on examination, I found had dropped. She was in extreme pain, and only stood a few minutes. I ordered a saline aperient, the feet in cold bran

poultices, and a mild, stimulating liniment daily to the coronets. Under this treatment she improved, and on the 2nd of September I made my final visit. She was then able to rise easily, and walk well on soft litter; but the soles, fore and hind, are convex, and will so remain.

The cow had been, up to the time of my seeing her, at pasture, and had been noticed for some weeks to walk in a peculiar manner. She calved on the 2nd of August, but the foot tenderness was observed before that date.

Purpura Hæmorrhagica (Heifer).

On the morning of the 29th of August last, I was summoned to attend a six-months-old heifer calf at Perton Grove, supposed to have been kicked on the head. On my arrival I found the animal with a herd of eight, in the meadow—presenting the following symptoms: Disinclination to move, a stupid, bewildered expression of countenance, flanks tucked up, and breathing slightly laboured. A sanguineous discharge issued from both nostrils; the mucous membrane lining the chambers, and also that portion covering the septum, was dotted with petechial spots. They also existed on the under surface of the tongue, and on the bucchal membrane on both sides of the mouth. The conjunctivæ were extremely injected, and the haw presented extensive blood extravasation. Without any hesitation I pronounced the case one of *Purpura Hæmorrhagica*, ordered the patient under cover, and a diffusible stimulant, but gave an unfavourable prognosis, and the probability of a fatal termination by night. On paying a second visit in the afternoon I found the prostration much greater, add to which, sanguineous oozings had commenced on several parts of the surface of the body, especially behind the shoulders; there were also some on the fore arms.

In the evening, despite every means taken to support the animal, every symptom had advanced, and at about ten o'clock death took place.

Post-mortem Examination.—This I made the following morning, and an extraordinary, though characteristic condition of the disease was presented. The extravasation under the skin was extensive, but that internally was far greater. The surface

of the peritoneal membrane covering the abdominal viscera was literally covered with petechial spots of various size and hue, from a bright scarlet to a deep purple. The abomasum was entirely suffused, and nearly approached a black hue. When opened, the mucous membrane lining it was a mass of scarlet elevations on a livid surface, and presented a most striking appearance. The membrane within the other stomachs, particularly the *manifold*, was also spotted and easily detached. The bladder, which was distended with urine, was likewise spotted. The diaphragm on both sides presented the same appearance.

On opening the thorax, these spots were found innumerable all over the costal walls. The lungs had a few towards the edges of the lobes. The thymus gland was loaded with extravasations, whilst the heart was covered with them, converging at its apex and forming one large livid blotch. A section revealed extensive sub-endocardial extravasation—a large portion of the membrane had a very bleached appearance, merging into a peculiar green shade. There were a few petechial spots on the valves, and one large diffused patch on the centre of the triscuspid.

Cause.—All the herd had been living extremely high, being well pastured in the day-time and housed at night, and in addition to other nutritive and stimulating food, were having bean-meal. This forcing system applied to such young animals was, to my mind, the likely cause of the disease. At the same time, it should be mentioned that all were, and had been for some time, badly affected with Ring-worm, for which, since the 13th, they had been under my treatment, and were at the date of this attack of *Purpura Hæmorrhagica* recovered. Whether the long duration of Ring-worm and extent of surface it covered had any connection with the case described is a matter for consideration.

Another of the herd commenced the same day with suspicious symptoms of the same disease, exhibiting a livid hue of the Caruncula lachrymalis, and discoloured nasal membranes. A saline, followed by stimulants and iron, was prescribed, and on the third day she was convalescent. The remainder of the herd were also similarly treated. Disinfection, change of pasture, and a suspension of the bean-meal was also ordered, and they continued in good health.

A CASE OF PERFORATED INTESTINE.

BY CHARLES CLAYTON, M.R.C.V.S., R.A., AFGHANISTAN.

THE subject of this communication, No. 96 B.W.M., attached to A Battery, R.H.A., was reported sick at 7 a.m. on the 14th December, 1879; on my arrival, shortly after, the animal was in a hopeless condition. Death occurred at 9.30 a.m. The communication I am about to make appears to be full of interest as a rare instance of lesion of the small intestine—a lesion which, to all appearances, existed for some time without producing any manifest inconvenience to the patient. I have much pleasure in forwarding the specimen by parcel-post, and trust it will arrive safely.

I have consulted the only work at hand, viz., Zundel's "Dictionary," and find he makes no mention of such an accident; that at the article Tænia he describes two species, viz., *Tænia perfoliata* and *plicata*, and concludes by remarking:—"L'état pathologique produit par ce ver comme celui produit par le précédent est inconnu." I think those I send are of the first species; though they may belong to some other class, for I have no means of ascertaining, as my 80 lbs. of baggage excluded all possibility of providing myself with other works than the one mentioned above.

As soon as circumstances would permit, the *post-mortem* examination was made. On opening the abdominal cavity I found the intestines floating in a small quantity of dirty-coloured fluid, holding in suspension pieces of partially digested grass and a few grains of undigested grain: attached to points of the intestines and the posterior face of diaphragm were traces of pseudo-membranes, which were also found in the pelvic cavity, around the bladder, uterus, and rectum. The peritoneal covering of the inferior wall of abdomen and that of the intestines was highly injected, and of a yellowish-red colour. Immediately in front of the anterior border of the pelvis was seen the portion of intestine I am forwarding to you; this portion was situated, measured by means of a foot rule, eighteen feet from the cæcum and thirty feet from the pyloric opening of the stomach. On taking it up carefully in my hand, I found the head of the longest tænia

protruding through the opening, by means of which a communication had been established between the intestines and mesentery. I extracted the helminth without injuring or enlarging in any way the opening found to exist in the specimen. The cavity situated immediately above the orifice contained a small portion of escaped solid matter from the intestinal canal, and blood-clots; the cæcum presented traces of congestion and inflammation, and contained several pieces of coagulated blood of various dimensions; the colon, immediately in front of the constricted part, was full of a dark-blue gravel mixed with pebbles, stones of the size of a shilling, and one nail. This mass was totally unmixed with alimentary substances, and weighed, when carefully taken out, exactly 5 lb. 12 oz.: the villous portion of the stomach was slightly irritated. Œstri, twelve in number, were found therein, as well as in the duodenum, three inches from the pyloric orifice. The other organs presented nothing worthy of record.

The orifice, found on the superior border of the small intestines, must have existed for some time, as its edges are smooth and thickened, with all the appearances of a chronic rupture; while the sack formed between the descending layers of mesentery prevented for some time, we cannot say how long, extraneous matter from falling into the peritoneal cavity, thereby prolonging the patient's life beyond a term that would appear possible after such a rupture, tear, or perforation had been produced.

It is difficult to arrive at the cause of the perforation. It may have been the nail. Could it be the *Tænia?*

The other parasites were found in the small intestines—one about seven feet from the pyloric orifice, the other twelve feet from the same point.

[The specimen has not been received.—Ed. *V. J.*]

CLINICAL NOTES ON THE SOUTH AFRICAN "HORSE-SICKNESS."

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I HAVE read with much interest the various articles concerning "Horse-Sickness," which have appeared from time to time in

the VETERINARY JOURNAL, and as I passed some months in South Africa during the late Zulu campaign, and had many opportunities of observing and treating this most fatal disease, I send the history of three cases, two of which I was fortunate enough to treat successfully.

It is not my intention to advance any theory of my own as to the ætiology and pathology of Horse-Sickness, this having been most ably done by several members of the veterinary profession; but I purpose recording the following cases, with a hope that they may be the means of supplying more practical material for the further investigation of a disease, the causation, if not the pathology, of which, up to the present time, is but little known.

I did not treat the first case that came under my notice, as I wished to observe carefully the natural course of the disease, unaltered by the action of medicinal agents.

It has always been my experience that, providing the malady is observed in its early stage, and that the animal is otherwise in a healthy condition, the best form of treatment is that by Diaphoresis.

CASE I.

On May 9th, 4 p.m., I was requested to see a valuable chestnut gelding, the property of a staff-officer stationed at Fort Chelmsford, which was said to be suffering from Glanders. This I knew could scarcely be the case, as I had examined the animal carefully only two days before (when the owner had bought him) for soundness. On inquiry I found that the horse had eaten his noon meal with relish, and appeared in perfect health.

Symptoms.—Pulse 72, and strong; respirations 22, and short; temperature of the rectum, 105°. Thick, cream-coloured, frothy discharge from both nostrils. Mucous membranes highly injected, with purple patches on the buccal membrane. The membrana nictitans was drawn over the eyes. The bowels were constipated. Surface of the body and extremities cold. Auscultation revealed distinct sibilus over the region of both lungs, with large mucus râles along the whole course of the trachea.

With the object of protecting the animal from the sun by day and the heavy dews by night, a temporary loose-box was erected, by means of some canvas and four posts, into which my patient

was at once removed. There had been no action of the bowels since the present owner bought him, a period of two days and a half.

Treatment.—I at once administered a bolus, containing Aloes 3v., Zingib. 3i., and directed that my patient should receive an enema at intervals throughout the evening and night; and as the pulse was very full and strong, and the animal in a plethoric condition, I took about four quarts of blood from the jugular vein, and applied a counter-irritant, in the form of mustard, to both sides of the chest.

9 *p.m.*—Pulse softer, but irregular; respirations 30; temperature still 105°. Mucous membranes of a purple hue (especially the buccal). Patient seemed much debilitated. The body and extremities were still cold. No sounds could be detected on auscultation, on account of the loud breathing of my patient. Bowels had not acted. Gave Oleum Lini Oj., and directed that the legs should be hand-rubbed and bandaged.

May 10th, 1 a.m.—All the above symptoms were much aggravated. Pulse imperceptible at the jaw, about 120. Respirations same as at last visit. Discharge from the nostrils increased (we were able to collect a pint of the discharge from the ground below the animal's head). The lips were retracted; there was abdominal tympanitis, and the animal appeared to be in much pain and sinking fast. The hind-quarters were partially paralysed.

5 *a.m.*—Since my last visit, the frothy discharge from the nostrils had increased considerably, the breathing was more jerky, and the contents of the nasal cavities were ejected to a distance of two yards. The animal appeared in a state of extreme prostration. Fæces and urine were passed involuntarily. He had lain down for the first time since the attack commenced, and at 6.30 a.m. he died.

Necropsy.—Abdomen very tympanitic, and contained a large quantity of serum intermingled with lymph. The body was well nourished. The mesenteric glands were soft and increased in size, dark in colour, and very vascular. Liver and kidneys normal; spleen gorged with dark blood, and almost twice its normal size. (I have found this to be the case in almost all *post-mortem* examinations I have made in this disease.) In the subcutaneous areolar tissue, infiltrations of blood and lymph were

found here and there. The mucous membrane of the intestines was covered with mucus, which, when removed, revealed small dark patches; this was more especially the case in the ileum and cæcum. The peritoneum was a little dark in colour.

Chest.—The chest, like the abdomen, contained a large quantity of lymph and serum. The pleura pulmonalis was of a yellowish colour; the pleura costalis was studded here and there with patches similar to those found on the intestinal mucous membrane. The lungs were gorged with dark blood, and did not collapse when the chest was opened. On cutting into them, the bronchial tubes were found to contain frothy mucus, and the vessels very dark blood. The heart was normal in colour and size. The pericardium was healthy, but distinct ecchymosed spots could be observed on the endocardium. The trachea was completely filled with frothy mucus. Œdema of the glottis was present.

I have found the above appearances in almost every *post-mortem* examination I have made of "Horse-Sickness."

CASE II.

On May 12th, 3 p.m., 1879, I was requested to look at a bay stallion, six years old, the private property of an officer. The animal was said to be "blowing," off his feed, and to have a discharge from his nostrils. On my arrival I found the case to be one of well-defined "Horse-Sickness."

Symptoms.—Pulse 60, strong and full; respirations 24, and short; temperature of the rectum 106°. There was a discharge of a frothy nature from both nostrils; the mucous membranes were highly injected. The Schneiderian membrane of the left nostril presented four small, red elevations. The extremities and surface of the body were extremely cold. There was retention of fæces. On inserting my hand into the rectum, I found the bladder empty, or nearly so. Auscultation over the region of the lungs revealed nothing, but a distinct mucus râle could be heard, on applying the ear to the inferior extremity of the trachea. I learnt, on inquiry, that my patient had been ridden by his owner that morning for about two hours, and had appeared in his usual good health and spirits.

Treatment.—I had the horse removed at once from the other animals, and picketed by himself. My first idea from the nature of the pulse and the retention of fæces, was to bleed and give purgatives; but as I had frequently done this in similar cases with very unsatisfactory results, I resolved to do neither, knowing by former experience that the first stage of the disease is quickly followed by one of extreme prostration. Although the atmospheric temperature was very high, I caused my patient to be clothed with three thick rugs, while the head and neck were completely covered with thick corn-sacks, and the legs well hand-rubbed. I then administered Liq. Ammon. Acet. f℥ii., Spts. Nit. Ether f℥ii. in aqua Oj., and gave instructions that the dose should be repeated every three hours, and that a bucket of fresh water should be placed before the animal, in which had been dissolved Nit. Potass. ℥i.

I then directed that an enema should be given, with the view of aiding the powers of nature to evacuation.

8 *p.m.*—Pulse, respiration, and temperature unaltered.

There had been no action of the bowels, but I was not inclined to give strong purgatives, it being my opinion that the fæces were retained from want of nervous energy, I therefore continued the enemata and stimulants. I was much surprised to find the body and extremities still cold; so added an extra rug, removed bandages, applied a solution of mustard to the legs, and re-applied the bandages. My patient was now clothed with four heavy rugs and seven corn-sacks. I then left for the night, giving instructions that I was to be called, should any change take place in the symptoms.

May 13th, 6.15 *a.m.*—I was much surprised to find my patient alive. On inquiry I found that he had been perspiring profusely during the greater part of the night. Pulse 54, and much softer; respirations 20, and not nearly so laboured; temperature 105°. Mucous membranes still injected and of a yellowish hue. No action of the bowels, but the kidneys had acted twice during the night.

The discharge from the nostrils was about the same as at my last visit. Purple patches were visible on the buccal membrane. Auscultation revealed nothing over the lungs; but the mucus râle at the inferior extremity of the trachea, though still distinctly

heard, was not so enormous. As my patient appeared very weak from extreme perspiration, and having had no food since he had been under treatment, I removed one of the rugs, and directed that he should be tried with a little bran and a few oats. He would not eat the bran, but took a few handfuls of oats. A drink was then administered, containing Sulph. Magnesia ʒiv., Nit. Potass. ʒii., Ginger ʒii., with stimulants every three hours.

6.30. *p.m.*—I was not able to see my patient till the evening. I was informed that he had eaten some "Kaffir corn," and had passed both urine and fæces. The former I was not able to examine, as it had not been preserved. The fæces were quite soft, yellow in colour, and had a most offensive odour. Pulse 45, very weak; respirations 18; temperature 102°, mucous membranes still injected, but much more healthy-looking. The small red elevations on the Schneiderian membrane had disappeared. The discharge from the nostrils was very slight. My patient, who appeared much debilitated, was still sweating profusely, and had a very "tucked-up" appearance. The extremities were warm. I ordered as much food as the animal would eat, the rugs to be removed, the body well dried, two rugs only to be replaced, and the stimulants and diaphoretics to be continued.

May 14th, 10 *a.m.*—Much improved, but greatly debilitated; action of the bowels and kidneys normal; pulse still 45; respirations 16; temperature 101°. Patient feeding, and has lain down for the first time since the commencement of the attack I removed one rug, and gave instructions that it should be replaced during the night.

8 *p.m.*—Progressing favourably. Pulse, respiration, and temperature normal. Feeding fairly well, but much debilitated. I directed that Ferri Sulph. ʒi. should be given daily, with good food. This animal was regularly ridden by his owner in about three weeks from the date of attack.

Case III.

May 20th, 5 *p.m.*—Brown mule, the property of Government. This animal was reported to me as suffering from Colic. On my arrival I found the mule exhibiting all the symptoms of Flatulent Colic. Tympanitis was present to a great extent.

My patient was treated for Colic in the ordinary way, after which he was much relieved, and in about three hours afterwards appeared quite well.

May 21st, noon.—Patient had another attack as above: was treated, and recovered as before.

May 22nd, 4 p.m.—Reported to be "blowing." The following symptoms presented themselves:—Discharge from the right nostril of a frothy nature; large swelling in the submaxillary space. Pulse 66, strong; respiration 40, and laboured. (I regret that I was unable to take the temperature, having broken my thermometer.) From the difficult breathing and the characteristic nasal discharge, I at once diagnosed the case as one of "Horse-Sickness." As far as I was able to ascertain by inquiry, the animal had passed no fæces for forty-eight hours. I was not able to examine the bladder, as the mule was very vicious, and it was quite impossible to introduce the hand into the rectum. On auscultation sibilus could be heard over the lungs, and distinct mucus râles over the inferior extremity of the trachea. I at once commenced to treat the animal as I had treated Case II.—viz., had the patient well clothed and bandaged, and administered diffusible stimulants and diaphoretics. On account of the viciousness of the creature, enemata could not be administered. I gave Magnesia ʒiv., Ginger ʒi., Nit. Potass. ʒi.

8 *p.m.*—Patient sweating profusely. He had drunk a good quantity of water. Pulse same in number as at my last visit, but weaker; respirations 32; mucous membranes livid; no action of the bowels or kidneys. Applied extra clothing in the form of corn-sacks, and directed that the stimulants should be continued, with as much water as the animal would drink.

May 23rd, 11 a.m.—Much surprised to find my patient purging. Fæces liquid and fœtid. Continued straining, with symptoms of Enteritis. Discharge from the nostrils decreased. No alteration in the number of the pulse, but very weak, at times hardly perceptible. Respirations 25, and much easier. Profuse perspiration, and great prostration. The near hind-leg was paralysed. The sibilus over the lungs could not be heard, but the tracheal mucus râle was still present. I gave a bolus containing Creta preparata ʒii., Opium ʒi., and directed the stimulants to be continued.

May 24th, 11 *a.m.*—Patient had fallen down during the night, and was unable to get up. The hind-quarters were partially paralysed. The pulse had fallen to 49, and was very weak; respirations 20, and easy. Mucous membranes almost their normal colour. The purging had abated. As the animal was in such a debilitated condition, I removed all the rugs except one, and had him well dried. I then gave instructions that Carb. of Ammon. 3i., should be given every three hours.

The animal remained in this state for about three days and a half, and continued to feed more or less the whole time. We then, with much difficulty, got him on his feet; he managed to walk a few yards, dragging the hind-legs behind him. After having existed in this state for nearly a fortnight he was destroyed, as being unfit for duty.*

With regard to the treatment of this disease, it has always been my experience that blood-letting, strong purgatives, and counter-irritation should be avoided.

[The mortality from this equine pest of South Africa is terribly heavy in the regions and seasons where and when it prevails. From a return furnished by Veterinary Surgeon R. Moore, who was present during the campaign against Secocoeni in the Transvaal at the end of 1879 and commencement of 1880, we glean some information with regard to the destructiveness of Horse-Sickness. The Transvaal mounted rifles, out of 200 horses, lost 133 between October 1st and January 29th. The Border Horse lost 49 out of 180, between October 1st and December 31st. The Lydenberg Rifles had only 64 horses, and of these 39 perished in the same interval. The Transvaal Artillery were more fortunate, as they only lost one horse out of 45, between October 1st and December 13th; while the Transvaal Mounted Police, between January 1st and 29th, lost no fewer than 38 out their number—127. Thus out of a total of 638, no less than 260 succumbed to this plague alone during active operations. Mr. Moore notes that the transport department and mounted officers also suffered heavily at the same time; and also that the former and the Transvaal Artillery lost a great number of horses

* At the time the animal was destroyed he exhibited no symptoms of "Horse-Sickness."

from the disease after their return to Pretoria. But this mortality, though startling in the extreme, is not so serious as that to which we have repeatedly referred, and which has been alluded to by travellers in these regions. For instance, Chapman ("Travels in Interior of South Africa," vol. i., p. 20) speaks of the Horse-Sickness killing, in the spring of 1852, thirteen out of fourteen of his own horses, and that nearly every horse in the country died. As one attack appears to afford immunity from another, in cases where the patient recovers, we would strongly recommend a trial of inoculation, after the method employed by Professor Toussaint. It is indeed strange that no experiments have been instituted in South Africa, with a view to ascertain the pathology and prophylaxis of such a deadly disease.—ED. *V. J.*]

ANTHRAX FEVER, OR LOODIANAH DISEASE, IN INDIA.

BY JAMES MILLS, M.R.C.V.S., ROYAL HORSE ARTILLERY.

(*Continued from page* 107.)

Cause.—In getting at the cause, let us bear in mind that nature deals out death with terrible severity where her laws are violated, even in ignorance, and it is for the most part only through dearly-bought experience that those laws are ascertained; and hence we begin to make inquiries as to the origin of a disease after being taught a severe lesson.

Now let us just glance, before going further, at the causes which were in existence when the disease first broke out at Bareilly. I will take the case of the Artillery as a typical one. The cause was totally due to air and soil-pollution, brought about by the low-lying situation where the stables were built, overcrowding, and a want of proper sanitation.

The stables are situated on a very low-lying piece of ground, which during the rains is a perfect pool—in fact, at the sick lines, I have seen the whole place completely inundated by water, and as a natural consequence, during a considerable portion of the year, it is very damp and malarious.

In a south-easterly direction, and at a distance of only 276 feet

from the stables, we have the houses or huts of the syces and grass-cutters, with the Battery Bazaar, containing a population of 698 souls, viz.—men, 267; women, 181; children, 250; and also five bullocks. The huts and Battery Bazaar cover an area of 95,539 square feet. The sanitation of these houses, etc., as far as can be carried out, is attended to; but still, even with the most rigid supervision, the laws of ordinary cleanliness are set at defiance.

Then, again, at the time of the outbreak there were, standing between the stables and the grass-cutters' huts, fifty-two "tats" (grass-cutter's ponies), besides seven bullocks belonging to the Commissariat Department, which, of course, all assisted in contaminating the atmosphere around the stables.

Their close proximity is very undesirable, as the emanations from their filth of every description, must reach the stables to a greater or less extent; and another objection is, that they prevent the free access of pure air.

In a north-easterly quarter, at a distance of 500 feet, we are again surrounded by a range of sand-hills which prevent air from reaching the stables in that direction.

The sick lines, forge, harness-rooms, and other stores, are much too closely built to the stables.

The buildings (stable) in themselves are tolerable, but are too closely set together. They are capable of accommodating a total of 114 horses. The foundations are of concrete, walls pucca,* brickwork white-washed, roof-trusses timber. Ventilation is secured by a "ridge ventilator," and through a longitudinal passage running the whole length of the stables, into which each horse-stand has an arched opening. They are also open at each end. Each stall has a cubic space of 1,614⅔ feet, and about 100 square feet of floor-space. But, as I before stated, their greatest fault is that they are built too closely together, the three stables, with their outside standings, only covering an area of 39,435 square feet, thus—

Area of stables	17,040
Area of outside standings	22,395
Total ...	39,435

* Good, or proper.

The above will show for itself that there has been overcrowding—not so much in packing the animals themselves too closely to each other, but in placing three stables within such a small space, side by side, so that all the foul air from the one passes to the other, and *vice versâ*.

To add to all this, there are rows of trees around and between each stable, with luxuriant foliage, even so low as to touch the horses as they pass underneath them; this prevents the sun from getting at the damp soil to evaporate the moisture. Trees in moderation I do not consider unhealthy, as they assist in absorbing the ammoniacal vapours that arise from the decomposing matter of the stable.

Sanitation.—A want of proper sanitation has, in my opinion, been the greatest cause of the origin of the disease.

The manure was deposited at a distance of only 250 feet from the stables, and from long accumulation had assumed a tremendous size, and covered an area of no less than 1,800 square feet. This in itself was sufficient to produce disease, as from its situation there is no means whatever of preventing the foul emanations which this manure gives off from becoming admixed with the air which the horses breathed; and we know that such exhalations, even however dilute, must at some time or other show themselves in the form of disease.

Then again, to return to the stables, the flooring had not been lifted for some considerable time, and as we are well aware, where there is no surface drainage there necessarily must be a large accumulation of putrid matter infiltrated through the flooring, which in turn gives off a large amount of noxious effluvia, not only in itself acting as a producer of disease, but as a convenient vehicle for the formation and conveyance of diseased germs.

The outside standings are badly built, having no "kunkur" for flooring, and are perfectly level, therefore there is no means whatever of any fluid running off; and as the horses are picketted out for a considerable time during the day, and in the hot weather during the night, there must also the soil become polluted.

Drainage.—The general drainage of the lines is very bad, and

it will be a very difficult matter to drain them properly, owing to the flatness of the site. There are no pucca-built drains in or around the stables to carry off any fluid matter, there being only a shallow drain between each stable, cut out of the soil, which during rain readily becomes filled up with sand, rendering them utterly useless—in fact, they are of no use whatever.

Well-water.—The well is situated in a north-easterly direction, 117 feet from the stables, and only 102 feet from the manure heap.

I regret I cannot say with accuracy whether the water assisted in producing the disease or not, as there has been no means of experimenting with it.

The water has been analysed by the sanitary officer of the station, and he was of opinion from his analysis that it was pure and wholesome. Still, nevertheless, from the close proximity of the manure heap to the well (only 102 feet), I deemed it prudent not to allow the horses of the Battery to drink the water until the matter was finally settled.

Any impure fluid from the manure heap would only have about thirty feet to gravitate to reach the water-bed and thus contaminate the water. However, to satisfy myself on this point, I applied to the executive engineer of the district to have a section cut of the soil near to the manure heap, which was carried out. I found that the decomposed matter from it had not penetrated so far as one would have supposed, but the soil was discoloured for a considerable distance, reaching about half-way to the water-bed. On cutting deeper no traces could be found of impurity, as the almost impermeable stratum of clay had prevented it going further.

The well being open at the top, and the nearness of such an accumulation of filth continually giving off a noxious effluvia, it naturally strikes one that a certain amount of it must reach the well, and in that way the water might have been rendered impure at the time of the outbreak.

When the horses returned again to their lines after the disease had terminated, I strongly urged that another analysis might be made before the well was re-used, which was carried out on the 20th of June, 1878, by the analyst to the Lucknow Circle, who

pronounced the water as impure, which is shown by his analysis appended.

Result of an Analysis of a Sample of Water from the R.A. Lines, Bareilly, examined June 20th, 1878 :—

Organic matter, grs. per gallon	...	...	11·25.
Chlorine ditto	...	...	3·47.
Sulphuretted hydrogen, large amount.			
Ammonia, trace.			
Nitric acid, trace.			

When looking at the above analysis, it very naturally would occur to one that these impurities could easily be accounted for, owing to the well not having been used for such a long time; but before taking out the samples I had it emptied, thoroughly cleaned, and allowed to refill.

Another sample of the water was asked for, which was sent, and on the second occasion it was considered "pure"; therefore, out of the three analyses, we have it shown on two occasions to be pure, consequently the horses were allowed to drink from the well again.

Although I bring forward all these suppositions regarding how the water might have become contaminated, in the face of these analyses I must leave the well-water an open question, as I cannot say definitely whether it played any part or not in producing the malady. Still, like all other points, it demanded careful investigation.

Soil.—I will give, before entering into details relative to the soil, the formation of the geological strata, taken at three different places in the station.

R.A. Lines, taken at No. 1 well :—

Upper 10 ft. stiff clay.
18 ft. brown sandy soil.
28 ft. fine white sand.

European Infantry Lines, taken at No. 1 well :—

Upper 10 ft. stiff clay.
15 ft. brown sandy soil.
28 ft. fine white sand.

European Infantry Lines, taken at No. 5 well :—

Upper 10 ft. stiff yellow clay.
17 ft. brown sandy soil.
28 ft. fine white sand.

No. 1 well is a considerable distance from the one the horses have been watered at, and No. 5 well is still further, but the above formation may be considered as typical of the kind of soil found within the station, with occasional slight variations—as, for instance, the soil upon which the R.A. stables are built has, in addition to the other layers, an upper one of "alluvium"; which, I should suppose, is brought about by the inundations which take place during the rains, this alluvium being carried by the motion of the water, and deposited, gradually forming a regular stratum of the soil.

This stratum of alluvium is not composed entirely of earth, but contains a large amount of sand, which is washed off the sand-hills which surround a portion of the position, thus rendering the upper part of the soil very permeable; and we know that such soils allow from sixty to ninety per cent. of falling water to penetrate, and also allow effluvia from contained decomposing matter to pass through them for long distances. Now, seeing that such is the case—and where any disregard has been paid to sanitary precautions, the air and soil soon become polluted—and from what I have seen of the epidemic, leaves little doubt that this air and soil-pollution has been the immediate cause of the outbreak.

The cleanliness of places where the upper layer of soil is of a permeable nature is, therefore, often greater in appearance than in fact, as decomposing matters are readily absorbed from view; and is this not in itself sufficient proof to us that if sanitary measures are not rigidly carried out in such places, that the whole situation will, in time, become a hot-bed of disease?

Now that we have seen the causes which were in existence at Bareilly; and when we reflect attentively on the insalubrious position of the place; the abundance of animal and vegetable matter in progress of decomposition close to the stables; the bad system of drainage, and the bad flooring—giving off morbific

exhalations from the fluid feculent matter which it must contain; and lastly, the crowding together of the stable-buildings—does all that evidence not justify us in concluding that this epidemic fever was dependent on the two before-mentioned sources for its origin, viz., air and soil-pollution?

Just let us try to find out how all this was brought about, and to see if it was due to some hidden influence, or whether it was of a preventable nature. This can only be done by a careful examination of each cause, and by trying to ascertain the facts connected therewith.

For the sake of simplicity I will take the various subjects in succession which I wish to enter into, beginning with the most important of all.

(To be continued.)

Editorial.

PROFESSIONAL UTILITY AND PROGRESS.

THE veterinary profession must stand or fall by the amount and degree of service it can render to the community. No Acts of Parliament or the patronage of titled persons will commend it to the world, unless it can show that it is deserving of commendation and countenance through its utility, and the manner in which it pursues its aims and aspirations. There are, perhaps, few professions more severely tested on these points than our own, or one whose claims and attributes are more closely scrutinised by a not always indulgent public. The practice of our calling is attended by a multitude of difficulties, which he alone can properly estimate who has fully to encounter and overcome them; and the amount of skill, perseverance, and address necessary to make a successful practitioner, is certainly not less than would be required to establish a good reputation in any other profession.

An intimate acquaintance with the many and varied branches of science which lend their aid to veterinary medicine, and a deep knowledge of special subjects, are absolutely indispensable to him who would seek to excel—while, in addition, physical qualities of no mean order, and manipulative ability of a particular kind, are no less needed in the demands of a veterinary surgeon's every-day life. All these must be possessed by the young practitioner to at least a reasonable extent—for experience and increasing intelligence alone can bring some of them to maturity.

If the veterinary profession in this country has not made the progress it might and should have done, the cause for this is to be found, not only in the deficient education—general and scientific—of many of its

students, but also in the gross ignorance which has too largely prevailed among them of the manipulative details so essential in practice. Quantity, and not quality, appears to have been the main object in replenishing and increasing our ranks, and it has been stupidly imagined that a few months' sitting on a bench listening to wearisome stereotyped lectures which taught scarcely anything, was a sufficient initiation into the art and science of veterinary medicine to enable men to earn a livelihood as veterinary surgeons—even though these men were utterly ignorant of everything relating to the management and handling of animals in health and disease before they went to the professional schools. We cannot be accused of exaggeration when we venture to assert that scores of young men, very imperfectly educated—scarcely able to read and write their own language—who may have failed in other pursuits, and without any idea of the requirements of a veterinary surgeon, have entered our schools, and in due time received the diploma of the Royal College of Veterinary Surgeons, without ever having administered a dose of medicine, performed the most trifling operation, or gained the slightest insight into the ordinary routine of practice. What happened when these unfortunate graduates appeared in the stable, the cow-shed, or sheep-pen? Why, they covered themselves and their profession with ridicule and disgrace, for they were less competent to minister to diseased animals or undertake operations than the amateur or roadside quack.

The amount of injury which has been in this way inflicted on veterinary science has been most severe,—while the public has suffered in purse, and the domesticated animals in body. Quackery would have been extinct long since had the Royal College of Veterinary Surgeons been alive to its own interests, and cognisant of its duty to itself, the public, and humanity. It is not yet too late to attempt to repair the mischief wrought during the many years our corporation was under school domination; and the entire body of the profession will, we feel assured, hail with unalloyed pleasure the announcement we are able to make, that by a large majority the Council of the Royal College of Veterinary Surgeons has resolved that no student, after a certain period, shall receive its diploma who has not served a pupilage of at least one year with a qualified practitioner. This is the most important step in the direction of progress which has been made for a long time, and it should in due course be followed by the happiest results. No arguments which have been brought against the pupilage system are worthy of notice. Like everything else good, it may be abused; but of this we have no fear, and it would indeed be a grave reflection upon our profession to declare that its members cannot be trusted to honestly carry out a contract such as that entered into between master and pupil. It is quite evident that the schools cannot ensure that training in practical details which it is absolutely necessary the veterinary surgeon should possess on his entrance into public life, and therefore he must receive it somewhere else before he can be certified as competent to discharge his functions in a creditable manner. The dignity, value, and reputation of the profession are entirely in our own hands, and we are confident that those practitioners who

have the courage to receive pupils, will not fail in their duty towards them. The better they train them, so the better are they discharging not only this duty, but serving the highest interests of the public and the profession.

Another step forward has been made by the Council, in the election of a large number of Honorary Associates—men who have made their mark in our science and in that of comparative pathology. By acknowledging the debt veterinary medicine owes them, the Royal College not only honours these men, but receives honour. For reasons which are not far to seek, the profession here has held no place among our European colleagues—indeed, it appeared to be non-existent. Surely the time has come when it should make itself known beyond the waters which encircle these islands! The honours conferred should at least be accepted as a recognition of our admiration and gratitude to those who have laboured long and hard, and with such great success, in the useful and noble calling which we ourselves claim the privilege of pursuing.

DERMATITIS PUSTULOSA CONTAGIOSA OF THE HORSE.*

BY PROFESSOR FRIEDBERGER, MUNICH VETERINARY SCHOOL.

AT a meeting of a Veterinary Association in Munich, May 24th, 1879, the subject of "Stomatitis Pustulosa Contagiosa of Horses" was brought forward; and I (Prof. Friedberger) suggested that the skin disease which was very prevalent at the commencement of the year might possibly be due to the same pathological process.

In support of this supposition, I will direct your attention to a disease in a stallion (published by Kreisthierarzt Gibs in Roloff's *Archiv*, band v., p. 218), which seemed to be affected with a disease resembling that described by Messrs. Eggeling and Ellenberger,† and from which a mare became infected. About the seventh to the eleventh day after the mare became ill, twenty-six boil-like swellings appeared on the right side of the withers, ribs, and quarters. The swellings were about half the size of a hazelnut, and soon formed abscesses and ulcerated. No other symptoms of disease could be detected in the mare.

Although all the facts relative to the above case are not known to me, still I venture to publish some observations in order to stimulate others to do the same. And I do this all the more willingly, because I see (in No. 12 of the *Monatsschrift des Vereins der Thierarzte in Œsterreich:* VETERINARY JOURNAL, 1879) a notice of a disease which is undoubtedly the same we have met with in Munich. This notice read as follows :—

"A SKIN DISEASE OF THE HORSE.—In the *Zeitung des Verbandes Deutscher Fuhrunternehmer*, we find a communication taken from the *Milch-Zeitung* which says, that for the last three years the horses in London have been suffering from a very peculiar skin disease. It first appeared in horses imported from Canada. Prof. Axe, of the Royal Veterinary College, has investigated the disease, and found it to be contagious, and that

* Translated from the *Wochenschrift für Thierheilkunde und Viehzucht*, No. 19, May, 1880, by G. A. B.

† See VETERINARY JOURNAL, vol. vii., p. 293.

the clothes, harness, and other articles the animals wear may be the medium by which the contagium is conveyed from one animal to another. He also found that when a scab from a diseased animal is rubbed on or kept in contact with the skin of a healthy one, a similar disease is produced. It generally affects horses from three to seven years of age, and is characterised by the absence of any inclination to rub themselves (itching). The first symptom of the disease is inflammation of the skin, succeeded by the formation of small vesicles, which quickly develop into pustules, and secrete a creamy-like exudate. Finally a scab is formed, which becomes detached as the skin heals under it. The disease may remain for weeks, and even months."

The editor of the above newspaper observes that it may be a scabby (*grindartiges*) eczema, a view with which, from the history of the case, I cannot exactly coincide.

The facts observed by me are as follows :—

At the commencement of 1879, Mr. F——, a horse-dealer, brought eighteen horses direct from England to Munich. Several of these animals became affected with a peculiar eruption in the skin, peculiar both as regards its commencement and form, as well as the ease with which it was communicated to others.

Some of these animals showed symptoms of the disease as soon as they were brought to Munich ; others only after they had been in the stable for a month.

The disease usually commenced behind the withers, where the pad comes, and spread backwards, sometimes on one, at other times on both sides of the spine. The first sign of the disease frequently appeared to be a wrinkling of the skin (chafing), as though the surcingle band had been too tight ; but in spite of all the precautions against such an accident, the disease still continued to spread.

The extent of the disease varied in different individuals ; for instance, in some cases the surface affected was about the size of the palm of one's hand, or twice that size ; in others, although less frequently, it extended all over the back, thorax, and lumbar regions to the croup. It seldom affected the place where the collar goes (shoulder), and never the head, neck, or extremities ; whilst other observers—Giel, for example—found that the fetlocks were also affected. The eruption also appeared on places distant from one another—for instance, the withers and croup, etc.

I was enabled to watch and follow the extension and contagiousness of this malady in one of the royal stables. Two horses were bought from the above-mentioned dealer, which plainly showed symptoms of the disorder at the time of purchase. I examined the horses about eight days afterwards, and found that one of them had the disease very badly. A few days later another horse in the same stable was unmistakably affected on the withers. And as all the horses in the stable were perfectly healthly until these two were introduced, this horse must have taken the disease from them. Although the animal stood seven stalls apart from the two, and had another man looking after it—in fact, there was no direct communication between them ; still, it is easy to imagine that the same saddle or saddle-cloth, etc., may have been used for these animals ; and since there are very convenient vehicles for conveying the infectious matter, we need not entertain a doubt as to how this animal became affected.

In spite of all practical carefulness, frequent cleansing and disinfection, etc., the disease still continued to spread ; five other horses became affected, and by the end of the sixteenth week the disease had gone through the whole stud.

The clinical phenomena presented were as follows :—The skin appeared sore, and was painful on pressure ; the temperature of the part was increased;

turgid, round prominences appeared, varying in size from a millet-seed to a hazelnut, some being isolated, others in groups; the hair at these parts was erect.

When these prominences were more closely examined, they appeared to be firm, tolerably well-defined nodules, sometimes reaching deep into the corium, and when rubbed showed more pain than irritation; great pain was evidently produced when they were pressed. The nodules gradually increased in size until about the sixth or eighth day (sometimes earlier, sometimes later), when small pustules formed at their apices. After the discoloured crust (formed by the agglutination of the necrosed tissue elements) became detached, a thick, healthy, purulent discharge was seen. When these pustules were pressed—a procedure which caused the animal great pain—about one cubic centimetre of thick pus escaped, but I could never detect any dead tissue in it.

The exuded pus dried into a dirty-yellowish, and if mingled with blood, brownish-red crust, which, when united with the surrounding hair, formed a firm scab. This, when removed, left an ulcer, varying in size and depth. The bone of this circular ulcer, which sometimes extended deep into the cutis, was of a greyish-yellow transparent colour, and was covered with a thin layer of watery pus (plasmatic exudate). The borders were thick and swollen. The ulcers, which were at first lenticular, soon enlarged to twice or thrice this size; and if two or more were found near each other, they became confluent, and formed an ulcerated surface the dimensions of half-a-crown. After a time granulation and cicatrization commenced.

There was seldom any inflammation of the superficial lymphatics (corded swellings). Therefore I think we must consider the extension of the disease to be principally due to the discharge from the ulcers coming in contact with the healthy skin.

In those cases where a considerable surface of the general integument was affected, the ulcers were more disseminated, and—as mentioned above—were frequently remotely situated from one another. Sometimes the disease was limited to a small isolated patch, which completely healed in about a fortnight; but if the disease was more distributed, and extended slowly, it sometimes lasted from four to six weeks, or more.

The horses never appeared to be unwell, or to suffer in the slightest degree.

The treatment consisted in thoroughly cleansing and disinfecting the stable utensils, harness, clothing, etc. The animals were isolated, and their clothing removed; the ulcers, etc., were washed and kept clean. As a rule, nothing else was necessary. Sometimes carbolic acid, soap, oil, or glycerine was applied.

No untoward *sequelæ* were noted in any of the cases.

The nature of this doubtful contagium has given me great anxiety and trouble. I have frequently examined the contents of the ulcers with negative results. At first I found a small parasite (*Milbe*) 0·0827 millimetres long, and 0·0526 millimetres wide, having very indistinct limbs, and a head similar to creatures of the sarcoptic species; but I could not find it again, so I considered its presence as purely accidental.

As I never detected any eruption on the visible mucous membranes, nor on the lips, I inoculated a horse with the purulent matter on the oral mucous membrane, but with negative result. This experiment, however, was unfortunately made upon a very old animal, though it was inoculated both on the dental and labial surface of the mouth, and also on the general integument. Therefore, it cannot be looked upon as a definite proof of the non-inoculability of the disease.*

* This contagious cutaneous epizoöty has evidently no relationship to the malady which Eggeling and Ellenberger described as "Stomatitis Pustulosa Contagiosa," cases

DISEASES AMONG ANIMALS IN QUEENSLAND.

FROM the comprehensive and interesting reports for 1879, prepared by the Chief Inspector of Stock in Queensland, Mr. P. R. Gordon, it would appear that sheep have suffered seriously from Distomatosis (Fluke disease) in several parts of the colony, in consequence of a season of continued wet. Bovine Contagious Pleuro-pneumonia was prevalent, but it was supposed to be of a milder type than usual. Protective inoculation was being generally resorted to, faith in its value being now universal throughout the colony.

The sheep-runs were becoming infested with a plant known as the "Bathurst burr" (in reality the *Xanthium spinosum*), the spines of which tore the wool from the sheep. In some parts of the Darling Downs and Maranoa, in the vicinity of public camping-places, it has completely overrun large areas, like the *Xanthium spinosum* of the Cape Colony (the "Bathurst burr" of Queensland). But another burr, the *Xanthium strumarium* (the "small burdock" of Loudon), had also lately appeared in the vicinity of the Pine Mountain, Upper Brisbane, which is much more pernicious than the Bathurst burr, inasmuch as it produces a burr larger and more destructive than the latter, and at an early stage of its growth is eaten by stock, producing poisonous effects.

The *Xanthium strumarium* was originally introduced with cotton-seeds from the Southern States of America, and for a time was confined to the plantations on which it first appeared, but during the past year it has spread to a considerable distance from its original centre, having been carried up the river by cattle, and washed down by floods; so that it has fixed itself in widely scattered districts. Specimens of it are often seen in bundles of green stuff brought into Brisbane for sale. The plant takes entire possession of the land; it grows to a height of from five to seven feet, and when mature it carries hundreds of burrs. To prove its poisonous character, and that stock eat it freely when the plant is young, casual and experimental evidence is afforded by Mr. Gordon. Of all the cattle poisoned by the plant, none appeared to have been affected with much pain, the animals lying motionless, as if paralysed. The fæces "were generally mixed with a slimy matter tinged with blood."

One estate above the Noogoora had lost no animals from poisoning for sixteen years, and the plant had not been seen during that time. Mr. Yates, the lessee, had nine milch cows reported dead one evening. On his way to examine these, next morning, he found the carcases of fifteen others recently dead. "As they were all lying either in or close to large clusters of this plant, he determined to watch his cattle and ascertain whether they ate it. He particularly noted five cows he saw eating the young plants, and in the course of a few days all these five died." A number of cattle belonging to other people, and which were pastured on the same estate, also died. A valuable horse was found dead among the plants, its stomach being packed with the weed, and more recently a sheep was found dead under the same circumstances.

of which Friedberger has also reported, and translations published in the VETERINARY JOURNAL. The pustular skin disease was very prevalent in London and many parts of England; but there was nothing variolous in its character. From this country it was imported to the Continent, where it prevailed extensively in Belgium, as we have already reported. It appears from the *Thierarzt* for January, 1880, that in the summer of 1879, the so-called "Stomatitis Pustulosa Contagiosa" prevailed enzoötically in several parts of Germany. In some cavalry regiments in that country it appeared as an enzooty. Indeed, we learn from the *Mittheilungen aus der Thierarztlichen Praxis in Prussischen Staate* for 1877-8, that it was widely diffused in that kingdom. There is every reason to believe that this was Horse-pox.—ED. *V. J.*

Cattle eat the plant greedily when it is a few inches high, but never touch it when it has attained a height of two or three feet.

An extract poisoned small animals, as did also that of *Xanthium spinosum*.

Mr. Gordon urges the necessity for exterminating the plant, as its spread in the pastures of the colony would be nothing less than a calamity.

HUMAN AND ANIMAL VARIOLÆ: A STUDY IN COMPARATIVE PATHOLOGY.

BY GEORGE FLEMING, F.R.C.V.S., ARMY VETERINARY INSPECTOR.

(*Continued from p.* 279.)

I HAVE already alluded to the results of Small-pox inoculations on the horse, and shown that, as on the ox, they were either negative or nearly so, the positive results yielding only the most trifling evidence of infection, and nothing at all like Horse-pox being ever produced from the insertion of the Small-pox virus into the skin of the horse, while re-transmission to mankind only gave rise to Small-pox. On the contrary, as we have seen, Horse-pox inoculated on the cow produces what in every way corresponds to Cow-pox, or on man to Vaccinia. From the cow and man Horse-pox can be transmitted indefinitely; and while its action is modified by repeated transmissions, its protective influence against Variola is undiminished. This has been demonstrated times almost without number, from the days of Jenner up to the present date. The most interesting and instructive of recent demonstrations in this direction is that recorded by Dr. Pingaud, in a communication presented to the Paris Academy of Medicine a few months ago. Having observed, with Drs. Viseux and Thomas, an epizoöty of Horse-pox in February, 1879, he determined to make some experiments, and selected as a vacciniferous subject a four-years-old horse affected with the disease, but whose antecedents were well known, and whose health at other times was excellent. The cutaneous eruption was discrete; there were only a few crusts of pustules about the hollow of the pasterns; but in the mouth, and within the upper lip, the mucous membrane was studded with vesicles offering the characteristic nacrous aspect. Lymph was collected from these pustules with the greatest care, and seven young soldiers of the 10th Hussars, who had not been vaccinated, were inoculated. On the sixth day six of the men showed at the seat of inoculation the characteristic vaccine vesicles, which had a somewhat inflamed base. From four of the soldiers lymph was taken; with this sixty-four men—eight of whom had not been vaccinated—were inoculated. In forty of these the result was positive—60 per cent. successful vaccinations. With none of the patients were there any serious inflammatory symptoms, and only in a very small number did the inoculations assume a furunculous aspect. Calves were inoculated from the horse, but the proportion of successes were only 48 per cent., rather going to prove that the virus became weakened in the calves.

On May 5th, 1880, a case of Horse-pox was discovered in Paris among the horses of a German horse-dealer. A three-months-old heifer was inoculated on May 5th, with matter from this horse, the inoculations being made by three punctures on the udder. The result was a complete success; and from this animal another heifer was as successfully inoculated on the 13th of the same month. On the 19th there was a very fine vaccinal eruption, no fewer than sixty pustules being developed. Two other heifers were vaccinated from these, and so abundant was the lymph on the consecutive eruption that the Société d'Hygiène was well supplied with material for

vaccination purposes. In September of this year also, there was so severe an outbreak of Horse-pox among the race-horses at Chantilly, near Paris, that several of them had to be struck off their engagements.

I have stated that Horse-pox and Cow-pox are almost, if not quite identical in their effects, when transmitted by inoculation to man, the ox, or the horse. Chauveau inoculated five horses and two asses with animal vaccine from Naples; the youngest animal was seven years old, the others from sixteen to twenty years of age. For five and six days there were no signs, but in from five to eight days the seat of puncture became markedly papulous, the papules increasing in size until about the tenth day, when they were acuminated, had a very broad base, and were red, painful, and hard. From the ninth to the twelfth day was the period of secretion, the epidermis becoming slightly raised throughout the whole extent of the papule by an exudation of limpid citron-coloured serum; this dried into yellowish transparent crusts, very different in appearance from those of Vaccinia in man or cow. The secretion from the lymph continued for several days, and ceased from the thirteenth to the seventeenth day. When the crust was removed there appeared a moist granular red surface level with the skin, but having a deep central cavity, a kind of umbilicus, in which had been fixed, like the head of a nail, the prominent under-surface of the crust. There was no febrile reaction. In the asses there was shedding of the hair and epidermis in various parts, with abundant serous exudation. As compared with its evolution in man and the cow, the vesicle or pustule was slower, and there was a difference in its shape and character, the pustule being acuminated, the lymph scanty, and the umbilicus small or altogether absent; though in an ass sixteen years old the pustule had from the commencement a central umbilicus. In the horse the crust extends over all the pustule, while in man and the cow only the centre is covered. In the ox the lymph is rarely abundant, and there is never anything more than a thin brown crust; but in the horse the crust is wide, thick, rough on the surface, and transparent and citrine-tinted.

Before leaving the subject of Horse-pox, it may be observed that Spinola remarked that the low-lying regions along the Baltic appeared to be more infested with the disease than elsewhere.

Sheep-pox.

Sheep-pox differs from Cow and Horse-pox in having a history extending over some centuries, and closely in resembling Small-pox in its extension—this depending not only on its contagious but also on its infectious properties—and the eruption being more or less general over the body. Indeed, so far as intensity of virulence is concerned, its appearing in an epizoötic form, as well as the serious symptoms and mortality accompanying Sheep-pox, there is the closest resemblance between it and human Variola. We have seen that Cow-pox and Horse-pox are far from being serious disorders, the affected animals, in the majority of instances, being very little, if at all, disturbed in health, while the diseases are not infectious, and not always very contagious.*

* Depaul believed Horse-pox to be infectious, and cites, in support of his opinion, an instance in which a cow was inoculated with the lymph from the nostril of a horse, when seventeen other cows inhabiting the same shed were soon after infected, Cow-pox pustules appearing on the udder and teats. In addition, a horse kept in a badly-constructed box in this stable, and breathing the same atmosphere as the cows, was also affected, the eruption showing itself on different parts of its body. It is not at all improbable, however, that the cow-keeper and his assistants, who handled the diseased and healthy animals alike, were the chief agents in spreading the malady. Indeed, the wife of the cow-keeper, in milking the cows, was vaccinated on one of

In the first portion of this paper, I alluded to Sheep-pox being mentioned at the Vaccination Conference, and observed that it was there admitted that the sheep had a Variola of its own. On again looking over the report of that meeting, it appears doubtful whether the speaker who referred to it thought it was peculiar to the sheep, or whether it was not also derived from human Variola. The best proof that it has no relationship whatever to Small-pox, is to be found in the fact that it prevails continuously, and sometimes most extensively and fatally, in countries where Small-pox is extremely rare, as in East Prussia ; and in regions where the latter is never absent, and is often epidemic, Sheep-pox is only known as an imported disease. In England it is never seen unless introduced from countries where it is enzoötic. The terrible outbreak which ravaged our flocks in A.D. 1276, and continued twenty-eight years, was due to importation from France ; and the appearance of the disease in 1847 and 1862 was due to foreign sheep. It has been unknown in the country since the latter date.

Notwithstanding the close resemblance of Sheep-pox to Small-pox (the pustules in the former being, however, acuminated, but the course of the malady is very similar, the complications the same, and the mortality as great), yet the one disease has no influence either in the production of or protection from the other. It appears to be finally established that human Variola will no more produce Sheep-pox than it will Cow-pox, notwithstanding the close affinity between the two ; and while variolation will not protect from Sheep-pox, neither will inoculation with the virus of the latter prevent mankind having Small-pox.

Some authorities have denied that ovine Variola can be transmitted to the human species ; and the extreme rarity of cases of supposed accidental transmission certainly gives countenance to the opinion. But several instances are recorded, nevertheless, of veterinary surgeons who have been accidentally inoculated with the virus, suffering from local and general disturbance, like that produced by vaccination.* Korner† reports that a child who tended (barefoot) sheep affected with Variola, had a number of discrete and confluent pocks on both feet. This transmission occurred also to one of Korner's own children. On the back of the boy was developed a pock, which finally became as large as a five-pfening piece ; there was severe concomitant fever. The child appears to have been inoculated while Korner was charging some capillary tubes with Sheep-pox lymph from a pipette, a drop of the fluid, it is supposed, having fallen on him.

Röll has unsuccessfully attempted to inoculate cattle with Sheep-pox, and sheep with Cow-pox ; but Zundel‡ has given an instance in which two cows

her fingers, and yet continued to handle the teats of the others, notwithstanding the pain she experienced. Bouley has had perfectly healthy horses and cows cohabit with diseased horses, and when the malady was produced in them he was always able to trace it to direct contact. During the epizoöty at Alfort, in 1863, it was possible to transmit the Horse-pox to a series of horses by placing them one after another in a stall which had been occupied by a diseased horse. Each animal became affected in turn, and at times its immediate neighbours also ; but beyond those in that stable there were no further transmissions, all the other horses remaining unaffected. As Bouley justly remarked, a really infectious disease does not comport itself in this manner. Veterinary Surgeons Turenne and Mathieu have also experimentally demonstrated that Horse-pox is not infectious, and this is in accord with my own experience.

* See "Medizin. Jahrbuch des Oesterreich. Staates" ; also "Mittheilungen aus der Thierärztlichen Praxis in Preussen.," Jahrgang 17 ; and "Magazin für die gesammte Thierheilkunde," 1873, p. 467.

† "Mittheilungen aus der Thierarztlichen Praxis in Preusschen Staate für 1876-77 und 1877-78."

‡ "Journal de Méd. Vétérinaire de Lyon," 1867, p. 185.

were directly infected through cohabitation with diseased sheep. Haubner mentions that inoculation with Small-pox matter has sometimes produced pustules on the dog and pig; but reinoculation from these did not cause the malady in sheep. Hertwig and Hering assert that the malady is readily communicated to goats in a true form, and may be transmitted from them to sheep. In the goat the pustules are usually smaller, according to Giesker, and the general disturbance is less marked. But transmission is very far indeed from certain, as goats very often associate with sheep without becoming affected. Hering knew of an instance in which fifty-four goats grazed with diseased sheep, and only ten became sick. According to Kersten, Lenhardt, Spinola, and Gerlach, reciprocal inoculation of goats and sheep is always successful; while according to the observations and experiments of Gasparin, Dominick, Curdt, and Spinola, and, still more recently, Gerlach, there appears to be a close identity between the Variola of hares and rabbits and that of sheep, inoculations from one species to the other always yielding positive results.

Sheep have a kind of Variola known to the Germans as "Steinpocken" or "Aaspocken" (*Variola tuberculosa, Varicella ovium*). It has been described by Haxthausen,* Hoftrichter,† and Hering.‡

When vaccination as a protection from Small-pox began to gain ground, as its benefits were becoming more and more evident, many of the leading veterinarians on the Continent tried it as a protective against Sheep-pox; but they soon discovered that vaccinated sheep were as susceptible to their own particular Variola as the unvaccinated. Verrier, Gohier, Husson, Voison, and other veterinary surgeons, found that, no matter how successful the vaccinations had apparently been, the sheep took the disease, either accidentally or experimentally, as readily as before. For this reason vaccination is never attempted now, as it does not confer immunity from Sheep-pox —a curious circumstance with regard to inter-variolization among different species of animals.

The contagium of Sheep-pox is very active, as has been already stated. The observations and calculations of Chauveau with regard to the infectiousness of the malady, compared with that of Vaccinia, tend to prove that animals attacked with Sheep-pox will infect a hundred times more readily than those affected with Cow-pox. The Sheep-pox lymph also, according to the same authority, contains in an equal volume and weight a much more considerable number of virulent corpuscles, and is much more potent than that of Vaccinia. He has shown that if the latter is diluted with fifty times its weight of water, inoculation with it is uncertain in its result, while the Sheep-pox matter may be diluted with 1500 times its volume of water before it is reduced to the same condition. He has also demonstrated that the activity of this matter, like that of every other virulent substance, resides in the solid particles or elementary corpuscles held in suspension in the serum, which is not viruliferous; and that an equal quantity of Sheep-pox lymph contains thirty times more of these particles than that of Vaccinia.

It may be remarked that in Australia, New Zealand, and the American Continent, Sheep-pox has never been seen, because it has not been carried there. Yet human Small-pox, imported from the Western world, is as prevalent in those regions as with us. This should be convincing proof that there is no relationship between the two Variolæ, so far at least as their contagious principles are concerned.

(To be continued.)

* Rust's Magazine, band 29.
† Henke's, "Zeitschrift," 1831.
‡ "Specielle Pathologie und Therapie für Thierärzte," p. 389.

NEW REGISTER OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

OUR readers will be gratified to know that a new Register is now published —the too long interval of two and a half years having elapsed since the issue of the last edition. The present Register is corrected up to October, and contains several alterations and improvements. It can be had by application to the Secretary of the Royal College. The price is 1s. 6d. ; by post, 1s. 8d.

Proceedings of Veterinary Medical Societies, etc.

ROYAL COLLEGE OF VETERINARY SURGEONS.

QUARTERLY MEETING OF COUNCIL, HELD 13TH OCTOBER, 1880.

Present:—The President, George Fleming, Esq. (in the chair) ; Sir F. Fitzwygram, Bart., Professors Pritchard, Walley, and Williams ; Messrs. Freeman, Anderton, Morgan, Cartwright, Collins, Dray, Gowing Cox, Whittle, Taylor, Greaves, Blakeway, Coates, Dollar, Reynolds, Robertson, Woods, Cartledge, and the Secretary.

The SECRETARY read the notice convening the meeting.

The minutes of the last meeting were read and confirmed.

Signatures were affixed to diplomas in favour of Mr. James Callender, and Mr. Charles Byrne, holders of the Highland and Agricultural Society's Certificate.

The SECRETARY stated that a gentleman, who had received a certificate from the Highland Society in the name of Alexander Bell Stuartson, wished his name on the diploma of the Royal College of Veterinary Surgeons to be mentioned as Alexander Stewartson Bell.

Mr. TAYLOR and Mr. GOWING thought the Council should not agree to the request, as one diploma would not be in unison with the other.

Mr. ROBERTSON moved that the Council decline to give the diploma in the altered name as requested.

Mr. TAYLOR seconded the motion, but said there would be no objection to the diploma being granted in the original name.

At the suggestion of the President, the Secretary was instructed to inform the gentleman that he might have the diploma of the College if he resumed the name with which he received the certificate of the Highland Society of Scotland.

The SECRETARY announced that a letter had been received from Mr. Harpley, regretting his inability to attend the meeting ; also a letter had been received from Mr. Duncan Marquis, expressing his thanks to the Council for his brother's certificate in lieu of the original diploma, which had been lost in Australia ; likewise a letter from Mr. Morrison, stating that the diploma offered was not what he required, and declining to accept it.

Professor WILLIAMS stated that as Mr. Morrison had paid the fee and received the diploma, his name had been correctly entered in the New Register.

Mr. DRAY therefore proposed, and Mr. BLAKEWAY seconded, that the fee of one guinea be not returned.

The motion was carried unanimously.

A letter was read from Mr. Mayer, of Cirencester, stating that the minimum marks on the different subjects on which students were examined, when added together, made sixty ; whereas seventy-two marks were required to pass, and requesting that the Council shall give directions to the Board of Examiners with reference to the rejection of students.

The PRESIDENT said it had always been understood that seventy-two marks were required to pass.

Reports of Examinations.

At a meeting of the Court of Examiners for the Fellowship Degree held in London on the 8th August, 1880, four candidates were examined and passed.

Report of the Voting Committee.

At a meeting of the Committee, held 28th September, it was decided to suggest for the consideration of the Council a change in the form of the ballot-papers, and an alteration in bye-law No. 7, providing that, previous to an election, the Council should nominate not less than twelve scrutineers.

The PRESIDENT explained that the Secretary would prepare the form of voting-papers, and that three months' notice would be given of the proposed alterations, after which they could be discussed.

Report of Finance Committee.

The vouchers and receipts for payments during the preceding quarter were examined and found correct. The present liabilities amounted to £107 0s. 3d., which the Committee recommended should be discharged, and there would then be a balance left at the bankers of £345 17s. 4d.

The Committee reported that, in their opinion, the present state of the finances of the College would not admit of the appointment of a second Examiner at each table.

The SECRETARY read the treasurer's balance-sheet. Cheques were ordered to be drawn for the half-year's grant to Mr. Coates, and for current expenses.

Charters of the College.

Mr. DRAY moved, and Mr. TAYLOR seconded, that the three Charters of the College be deposited at the bankers' for safe custody.

The motion was carried unanimously.

Election of Examiners.

Mr. DRAY proposed that Professor Pritchard should be elected an Examiner *vice* Mr. Robertson, resigned, and, in doing so, said that Professor Pritchard had long been known in connection with the Veterinary College at Camden Town, and that was a sufficient guarantee of his eligibility. He was well versed in anatomy and physiology, and had had extensive practice in the diseases of domesticated animals.

Mr. COATES proposed Mr. Dan Gresswell, of Louth, who had been an Examiner of the Royal Agricultural Society for a number of years, and was a highly-respected member of the profession.

The PRESIDENT said that one feature in the election which deserved notice was that Mr. Robertson occupied two positions on the Board of Examiners. He examined in anatomy of other domesticated animals besides the horse, and also in bovine pathology. The fact should be known that he had performed a dual function.

Mr. ROBERTSON explained that the Council had divided the Examination upon Anatomy into two sections, placing at one table the anatomy of the horse alone, and at the other table the anatomy of animals other than the horse. He had acted as Examiner at the Second Examination, and at the Final Examination he examined first on equine pathology, and afterwards on bovine pathology.

Professor WALLEY said that the balance of numbers between the English and Scotch schools should be taken into consideration.

Mr. DOLLAR proposed Mr. Archibald Robinson, of Greenock. He had been eight or nine years in extensive practice with his father, and had an

extensive knowledge of all domestic animals, and of the professional science of the day. He had also studied for two years at Lyons, where he had done a great deal of work in connection with comparative anatomy. He was twenty-nine years of age.

Sir F. FITZWYGRAM thought the Examiners should be re-arranged, as he considered it was not possible to get the best Examiner in Cattle Pathology who was also the best on Horse Pathology. It was important to have a thoroughly practical man as regarded the cattle portion of the practice, and he knew of no man who would answer the requirement better than Mr. Finlay Dun, whom he proposed as Examiner.

Mr. GREAVES said the best man for the Practical Examination would very likely be unfit for the Examination on Anatomy. He would speak of Mr. Gresswell as perhaps the most thorough cattle pathologist in England.

Professor WILLIAMS proposed that the appointment should be provisional till the period when the other Examiners retired.

Mr. TAYLOR agreed with that proposal.

Professor WILLIAMS supported the candidature of Mr. Archibald Robinson.

Mr. GOWING supported the candidature of Professor Pritchard.

The PRESIDENT supposed it would be understood that the gentleman who should be elected would perform the double function of examining on both subjects.

Professor WALLEY said that Mr. Finlay Dun would not undertake that office.

The Bye-laws having been referred to, it was decided that the appointment was to be a provisional one, as previously suggested.

The ballot was taken, when six members voted for Professor Pritchard, seven for Mr. Gresswell, and eight for Mr. Robinson. The latter was declared to be elected.

Salary of Secretary in Scotland.

The SECRETARY read a letter from Dr. Dunsmure, explaining the increase which had taken place in the work appertaining to the duties of his office, and requesting that his salary might be raised to £31 10s. per annum.

After some discussion, in which the President, Professor Williams, Mr. Cox, and Mr. Morgan took part, Mr. COLLINS proposed, and Mr. DRAY seconded, a motion that the consideration of the matter should stand over until the new arrangements respecting the Examining Board had been made.

The motion was unanimously agreed to.

The PRESIDENT (the author) presented to the College Library a pamphlet on "Tuberculosis."

The PRESIDENT stated that the New Register had been published, and that each member of the Council was entitled to a copy.

Mr. MORGAN called attention to the omission of the name of a gentleman which he had asked to be inserted.

The PRESIDENT said that it would be well to have the name printed on a separate slip, which should be attached to the New Registers.

Pupilage of Candidates.

The PRESIDENT proposed—"That in and after the year 1884, no Candidate for the Diploma of Membership of the Royal College of Veterinary Surgeons shall be allowed to present himself for the Final Examination unless he shall have given sufficient proof that he has served a pupilage of at least one year with a duly-qualified member of the profession, and that during that time he has conducted himself satisfactorily."

The PRESIDENT said it was apparent that many graduates of the College were extremely deficient in the art of veterinary surgery. A

veterinary surgeon had to handle animals which were extremely refractory, rendering the operations to be performed dangerous to the operator and to the animals, unless the operator were skilled in manipulation. There were complaints that gentlemen who graduated in the College were sometimes utterly incompetent to practise their art, and were quite deficient in manipulative skill. For the sake of the profession, the owners of animals, and the animals themselves, he thought that graduates of the College ought to be able to practise their art on graduation. It was at one time recognised in the profession that an apprenticeship was necessary in order that a man might be instructed to use his hands in the manipulation of the animals he had to deal with, and also know the practical details of his work. The schools deserved all credit for the manner in which they had carried on the education of students, but it was not possible for them to teach a young man the practical details of his profession during the short time he was at College. He, therefore, thought the College should be able to assure the public and the profession that those who held its diploma knew the science of Veterinary Medicine, and were qualified to practise the art of veterinary surgery.

Mr. TAYLOR seconded the motion, and said he agreed with every word the President had said, and would rather that the term should be two years instead of one.

Mr. REYNOLDS agreed that a student should become acquainted with the manipulation of all kinds of animals before he went into practice, but did not think an apprenticeship should be insisted upon. It was the duty of the Examiners to ascertain that a student possessed all necessary knowledge. He moved as an amendment that the President's proposition be not carried.

Mr. COX, as one of the Examiners, said that at each examination the Examiners had a very anxious task, and sometimes did not know what to do for the best. They felt that to exact from very young men knowledge which they had had no means of obtaining was illogical and unfair. He did not think a school would ever be able to impart to the student the knowledge of manipulation necessary for his profession.

Mr. COLLINS remarked that the fifteen or twenty minutes during which the student was before the Examiner, were not sufficient to ascertain what practical knowledge he possessed. He had great pleasure in supporting the motion of the President.

Mr. CARTLEDGE supported the President's motion. He said that a large number of young men wishing to enter the army were rejected for deficiency in practical knowledge. There was no reflection on the schools, as they had comparatively few cases under their care. The other day he asked a young man, who he believed had taken all the medals at one of the colleges, to put the hobbles on, and he could not do it.

Mr. DOLLAR cited instances of want of practical knowledge, and said that when he acted as Examiner, if a man obtained a bad mark for practical knowledge he was not allowed to go up for the Oral Examination, and eight men out of twenty had been so rejected last year.

Mr. MORGAN seconded Mr. Reynolds' amendment.

Professor WILLIAMS thought there would be a difficulty in finding sufficient veterinary surgeons to take young men for a short period. Other men who had little or no practice would take money from young men and teach them nothing.

Professor WALLEY said he had four and a half years' practice before he went to College, but thought the time had been thrown away, as he had to *unlearn* all he had learned. "Apprenticeship" was a term which they, as professional men, should not employ. His opinion was that a student should pass the Preliminary Examination, and then go to a veterinary surgeon.

Mr. TAYLOR felt it was a humiliating condition by reason of its being supposed that a certificate would be given to people who had been taught nothing; or that it was possible that a student should for a number of years perform the various duties appertaining to the practice of the profession without learning something of the art. (Hear, hear.) In his observation the most exalted men in their profession were those who had seen most practice previously to going to College (Hear, hear.) The motion of the President was a step in the right direction, and he warmly supported it.

Professor WALLEY trusted none would think his remarks were directed to the Examiners.

Mr. DRAY also supported the President's motion.

Sir F. FITZWYGRAM said he could find nothing in the Charter authorising them to insist on apprenticeship.

Mr. ROBERTSON thought they should not ask more than they could expect. The tendency was for the last few years to put practical above theoretical knowledge.

The PRESIDENT said the College had power to exact from a candidate for his diploma a sufficient knowledge of the science and art of the profession, and nothing could be stipulated in the Charter with regard to that knowledge. Until the schools were in a position to teach men in such a way that they would be proficient in at least the minor operations of veterinary surgery, or until the Examiners could devote a whole day to each student, some guarantee was necessary that the candidates for the diploma of the College had acquired sufficient knowledge of the details of their art and a knowledge of handling animals. There was no reflection on the schools, as they had done their duty to students well, and the adverse circumstances under which they laboured were known to all.

Mr. Reynolds' amendment was put to the Council, and lost.

The President's motion was declared to be carried by a large majority.

Honorary Foreign Associates.

The PRESIDENT, in pursuance of a notice given at the last meeting, submitted a list of names of gentlemen whom he would propose that the Council should elect as Honorary Associates of the College, in recognition of the valuable services they had rendered to veterinary science. He could vouch that the names he had selected were those of colleagues well known on the Continent as scientific men. He thought it was high time such a step should be taken, for the College had obtained a recognised position in this country, and it was to be desired that it should be recognised on the Continent. The diploma, which he proposed, and which was in Latin, was in the same form as the ordinary Fellowship Diploma, with the necessary alterations in consequence of its being for Honorary Associates.

The SECRETARY read a list of the names of the proposed Honorary Foreign Associates.

The PRESIDENT stated that the list comprised the names of men of world-wide reputation, and he felt sure, if the Council elected them, that they would do honour to the College, while the College would be doing honour to them.

In reply to Mr. Dray and Mr. Taylor,

The PRESIDENT said the expense might stand for future consideration, but he did not think they could charge it to the Honorary Associates.

The SECRETARY reported an interview he had had with the Secretary of the Royal College of Surgeons, who informed him that they granted to Honorary Members free entry to the museum, library, and offices.

Mr. DOLLAR thought the number of Honorary Members proposed was large, and that the Council would do better if they asked the President to select some of the names, and let the members know which were chosen.

The PRESIDENT explained that the position occupied by the gentlemen named was a guarantee of their high scientific attainments, that nearly all of them were doctors of medicine, but before taking that degree they were veterinary surgeons.

Mr. TAYLOR inquired what would be the privileges of the Honorary Associates.

The PRESIDENT said the privileges they could offer were few. The privileges offered by the Royal College of Surgeons might be adopted by the Royal College of Veterinary Surgeons.

Professor WALLEY considered the President's word was a guarantee that the names mentioned were those of men worthy of the honour proposed to be given them.

Mr. COX thought, if the President's motion were carried, it would be an immense gain to the College to have such men associated with them. He considered it was a gracious act, and that it was desirable to themselves to invite those gentlemen to become Honorary Associates.

Mr. WHITTLE thought the passing of the resolution would improve the position of the College everywhere.

The PRESIDENT said he had selected names which had been long before the profession on the Continent and the scientific world. To have selected one or two names among so many would have appeared invidious. That would account for the large number of names he had proposed.

Mr. WOODS seconded the President's motion.

The PRESIDENT said that anything in the shape of an honour emanating from a body like theirs, would afford great pleasure and gratification to their foreign colleagues.

The motion was put to the meeting and carried.

The SECRETARY read the proposed certificate, and directions were given that it should be printed and sealed, and forwarded to the gentlemen named in the motion.

The SECRETARY was instructed to write to the different schools, requesting them to make arrangements in good time for the approaching examinations.

Notice of Motion.

The PRESIDENT read a notice of motion, which he proposed to make at the next meeting, to the effect that before a student presented himself for the First Examination of the College he should furnish proof that he had passed an Examination in general knowledge by some recognised educational body; that the extent of the Examination should be fixed by the College from time to time; and that it be of two grades—that which will qualify only for the membership, and that which will entitle the candidate to compete for the Fellowship Degree without undergoing a second examination.

A Veterinary Surgeon charged before a Magistrate.

The SECRETARY reported that, in accordance with instructions, he had written to the Clerk of the Court upon this subject, and had been informed that the man referred to was not a veterinary surgeon, but a professional thief.

The obituary notice was read.

SPECIAL MEETING.

The SECRETARY read the notice.

Sir F. FITZWYGRAM said that as a Committee would be appointed to inquire into the rearrangement of the tables of the Examiners, he would withdraw his motion as to appointing a second Examiner in each subject in

the Pass Examination, thinking it better that that matter should be considered by a Committee to be appointed.

Mr. DRAY assured the Council that the funds would not permit of their incurring further expenses.

Age of Candidates.

The PRESIDENT explained that an amendment carried in the beginning of the year for the adoption of a bye-law limiting the minimum age at which a candidate could present himself for Final Examination to twenty years, would be confirmed next meeting.

Mr. WHITTLE proposed, and Mr. TAYLOR seconded, a resolution, that the motion should be adopted at this meeting; it was carried unanimously.

The PRESIDENT announced that a meeting would be held within fourteen days to confirm the resolution.

On the motion of Mr. DRAY, seconded by Mr. TAYLOR, a vote of thanks was accorded to the President for the very efficient manner in which he had performed the duties of the day.

The Council then adjourned.

LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

THE usual quarterly meeting of the above association was held at the Blackfriars Hotel, Manchester, on September 29th; W. Dacre, Esq., President, in the chair.

Present—Messrs. T. A. Dollar, P. Taylor, G. Morgan, J. Marshall, James Lomas, W. Whittle, T. Greaves, C. W. Elam, E. Hitchen, J. Litt, T. Hopkin, J. W. Hill, Tom Taylor, J. Welsby, J. B. Wolstenholme, T. Stone, H. Beard, J. Bunnell, Wood, junr., E. Faulkner, J. Polding, W. A. Taylor, J. Ingram, Welsby, junr., and the Secretary.

Letters were received from Prof. Williams and Mr. George Fleming, accepting and thanking the members for the honour they had conferred upon them by electing them honorary associates; also from Messrs. Prof. A. Gamgee, J. B. Taylor, Alex. Lawson, H. Thompson, George Darwell, and W. Leather, regretting their inability to attend the meeting.

Mr. S. Locke proposed as member of this association Mr. James Wood Ingram, of Manchester; seconded by Mr. Tom Taylor, and carried.

Mr. J. B. WOLSTENHOLME exhibited a peculiar and interesting case of congenital malformation of fore-legs in a silver-haired terrier dog puppy; it was the sole offspring, and five weeks old. Each forearm was twisted from the elbow, so that the radius along its entire length was upon the ground; the anterior aspect of the carpi met and touched, from which point the paws were sharply adducted, with their plantar surfaces turned outwards at right angles with the ground; the outer aspect of each humerus was concave, to admit the misplaced elbow. Progression was very difficult, but the puppy was healthy.

Mr. TOM TAYLOR then described an interesting case, which he had named in the circular, "Practical remarks relative to a case of supposed lameness." The history was, that the animal—a dark-brown cob—had been apparently lame for three weeks, and the seat of lameness could not be diagnosed. Mr. Taylor, on seeing the animal run on in hand, was of opinion that both in walk and trot he was perfectly sound; but the owner remarked that Mr. T. had not yet seen the animal go lame, and to do so, it was necessary that his daughter (who had ridden it for a month prior to the lameness presenting itself) should ride it. The young lady did so, and at once the animal went very lame on the off hind-leg, both in walk and trot, and even when the saddle alone was on, the cob was still very lame. A careful examination gave

no indication whatever of the cause of lameness; but under the mane (of which the cob had a plentiful supply) a small circular abrasion was found, due to injury from pressure of a portion of the saddle which rests upon the shoulder; in the centre of this abrasion was a portion of disintegrated tissue, or what is termed a "sitfast." On manipulation of the surrounding tissue, the animal gave undoubted evidence of pain. Mr. T. was reluctant to think that so small an injury could produce the lameness, but upon examining the internal portion of the saddle he found a few beads of blood. He therefore had the cob run on in hand without the saddle, and both in walk and trot he was sound. The coachman, twice the weight of the young lady, rode the cob without saddle, and still went sound.

With a little care and attention the injury soon recovered, and the cob lost all indications of lameness. Mr. Taylor thought the case unique in character, and considered the apparent inability of the animal to bring forward the off hind-leg to be entirely due to the fear of pain in bringing forward the muscles of progression, because upon doing so, abrasion against the saddle of the sore part could not be avoided. This he substantiated by proving that when the irritation was removed, the cob went perfectly sound.

A discussion arose, in which many of the members took part, the whole of whom concurred in saying the case was very unique in its character.

Mr. T. A. DOLLAR then read the following paper upon the proposed "Penal Act":—

As you are aware, I am about to offer you a few remarks on the proposed "Penal Act" in connection with our profession. The effect of such an enactment would be to legally separate the veterinary surgeon from the farrier, cow-leech, or empiric.

Much the same was effected in the sister profession of surgery fully one hundred years ago, when, in the reign of George II., the surgeons were separated from the "barber surgeons"; that was a complete severance of a sort of body, or combined body, which existed from the time of Henry VIII. Ever since that time the surgeons have gone on as a separate body, and the barbers have been kept separate. It was a question of bleeding and cupping. For a long time the barbers kept up the old plan of bleeding and cupping, and the public thought it a sort of injustice to take the practice out of their hands; but no one now goes to a barber to be bled, though at that time it was thought to be an improper interference that people should not be bled by whom they liked.

I need hardly tell you that the education received by the veterinary surgeon of the present day will contrast most favourably with that received by the surgeons during the time of George II., though the barber at that period was quite as intelligent an individual as the cow-leech of to-day.

It may seem a paradox for me to state that, in my opinion, legislation in connection with this matter is of far greater moment to, and affects more largely the beneficial interests of the public, than our own profession.

The securing of that skilful and competent treatment for our domestic animals when disease, which is based upon a thoroughly scientific training in the individual that is to practise it, touches more or less directly the pecuniary interests of every owner of stock in the kingdom, and that is placing the matter on the very lowest footing; for, in my opinion, there are very few proprietors, even of the domestic pets the dog and cat, but, as a matter of humanity, who would not wish to have the advantage of scientific advice and treatment for them when suffering, and were such an Act as proposed in operation, they would then have a certain guide to obtain what they desire.

Upon what grounds are we justified in approaching the House of Commons and asking for a Penal Act? There are many reasons, but I will bring to your notice the four which I deem most cogent.

Firstly, For the benefit of the public generally, so that they may be enabled to distinguish between the quack and the individual who has undergone the prescribed scientific training, and passed the requisite examinations; so that his name appears on the college register.

Secondly, On the score of humanity to the lower animals. How often does it not occur that persons are entrusted with the treatment of animals, who describe themselves as veterinary surgeons, and have not the most rudimentary knowledge of the diseases they are called upon to treat, nor the nature, composition, or action of the drugs they administer! Is it not cruelty of the most atrocious description to place an animal, suffering, it may be, with some very acute malady, under the care of a person who is as likely to give it medicine that will greatly aggravate its sufferings as lead to their relief?

Thirdly, On the ground of equity to the profession. Why should its members suffer in the estimation of the public by reason of ignorant, illiterate, and low-bred individuals assuming the title conferred by charter in the following terms:—"And we do further declare and grant, that the veterinary art as practised by the members of the said body politic and corporate shall be henceforth deemed and taken to be recognised as a profession, and that the members of the said body politic or corporate, solely and exclusively of all other persons whomever shall be deemed and taken and recognised to be members of the said profession, or professors of the said art, and shall be individually known and distinguished by the name and title of veterinary surgeons"?

Fourthly, On the ground of precedent. What has legislation done for our own protection and safety when requiring medical or surgical aid? I cannot do better than quote from the Medical Act, 21 and 22 Victoria, chap. 90, 2nd August, 1858, an Act to regulate the qualifications of practitioners in medicine and surgery:—"Whereas it is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners," clause 41 is as follows:—"Any person who shall wilfully and falsely pretend to be, or take or use the name or title of a physician, doctor of medicine, licentiate in medicine and surgery, bachelor of medicine, surgeon, general practitioner, or apothecary, or any name, title, addition, or description implying that he is registered under this Act, or that he is recognised by law as a physician, or surgeon, or licentiate in medicine and surgery, or a practitioner in medicine, or an apothecary, shall, upon a summary conviction for any such offence, pay a sum not exceeding twenty pounds."

That is what the legislature have done with regard to medical aid.

I would inquire still further, What has been done to ensure that the medicine prescribed will be dispensed by persons properly trained and educated in a knowledge of drugs, so as to minimise the risk of being poisoned instead of obtaining the desired benefit?

In the Sale of Poisons and Pharmacy Act Amendment, passed 31st July, 1868, clause 15 provides that—"From and after the 31st day of December, 1868, any person who shall sell or keep an open shop for the retailing, dispensing, or compounding of poisons, or who shall take, use, or exhibit the name or title of chemist and druggist, or chemist or druggist not being a duly registered pharmaceutical chemist, or shall fail to conform with any regulation as to the keeping or selling of poisons made in pursuance of this Act, or who shall compound any medicines of the British Pharmacopœia, except according to the formataries of the said Pharmacopœia, shall for every such offence be liable to pay a penalty or sum of five pounds, and dealt with in the manner provided by the Pharmacy Act, for the recovery of penalties under that Act. But nothing in this Act contained shall prevent any person from being liable to any other penalty, damages, or

punishment to which he would have been subject if this Act had not been passed."

I do not for one moment think that any of my hearers will consider that too much precaution has been taken to preserve ourselves from harm. Are we, therefore, to deny our dumb and patient servants and faithful companions the same measure of protection that we have obtained for ourselves? Up to the present time we have denied them that protection, and will continue to do so till a satisfactory Act on this subject has been placed on the statute-book.

Not being a parliamentary draftsman, I am unable to place before you the exact terms of the Act that we, as a profession, desire, and that would secure for the domestic animals the same protection we require and have for ourselves. But to begin with, I would style it "The Veterinary Surgery and Medicine Act." I would have it to recite part of our Charter and provide a penal clause with relation to the title of veterinary surgeon, and also a clause securing for the lower animals a certain amount of safety from being poisoned, as they may be at present, by requiring that all persons selling or dispensing drugs for them will have some knowledge of their composition and action, and that this knowledge will be certified by an examination.

To conclude, an Act of Parliament, like most other things worth having in this world, costs money; and I would suggest, as the funds of the body corporate can ill-afford the expenses an Act would cost, that every member of the profession should subscribe the sum of half-a-guinea for the attainment of this object. (Applause.)

A long and very animated discussion took place, in which nearly all members and friends took part; all of whom, with one exception, were of opinion that the time had arrived when such an Act was very desirable, and no doubt, if obtained, would prove a great benefit to the profession at large.

It was proposed and seconded, that a committee be formed to consider the matter in all its bearings, and to draw up a form to present to the Council. Carried unanimously.

A vote of thanks was accorded Mr. Dollar for his kindness in bringing before the members a subject of such vast importance: also to Mr. Tom Taylor and Mr. J. B. Wolstenholme.

After a vote of thanks to the Chairman, the meeting terminated.

SAMUEL LOCKE, *Hon. Sec.*

NORTH OF ENGLAND VETERINARY MEDICAL ASSOCIATION.

THE quarterly meeting of this Association was held in the Turk's Head Hotel, Newcastle-on-Tyne, on August 27th. The President, Mr. D. Dudgeon, occupied the chair; there were also present, Messrs. H. Hunter, A. Chivas, F. Gofton, C. Stephenson, W. Wheatley, F. Corbett, G. Elphick, F. Nisbet, T. Foreman, M. Hedbey, W. F. Mulvey, F. Mitchell, the Secretary, and Professor Walley. Apologies were received from Messrs. W. Aude and F. Malcolm. Mr. W. Grieve, of Blaydon-on-Tyne, was unanimously elected a member of the Association.

A Committee, consisting of the President, Messrs. C. Stephenson, H. Hunter, and the Secretary, was appointed to wait on the Registrar of the School of Medicine in Newcastle, and ask him for the use of a room in which to hold the meetings of this Association.

Professor WALLEY was then called upon to deliver his lecture on "Diseases of the Hock." He desired in the first place to express to the members of the Association his great pleasure in being among them, and also to say that he was not going to lay down any dogmatic rules, but simply to express his ideas, in the hope of teaching something, and to learn something in return

from the discussion which he hoped would follow. Before commencing his lecture, he laid before the members some interesting specimens, amongst others there was a fine specimen of an *ante-mortem* clot from the left ventricle extending along the anterior and posterior aorta and iliacs, etc. The history of the case was as follows :—A Belgian cart-horse had an attack of Bronchitis in March and again in May, and recovered. In August he took ill again ; was coughing ; the membranes were yellow, and there were indications of another attack of Bronchitis. But the animal in a few days became much wasted ; the pulse went up to 140, the temperature to 105°. Auscultation revealed patchy consolidation in both lungs ; emaciation went on apace. Diagnosed the case as one of breaking-up of the lung-tissue, or abscesses, with disease of the liver. On *post-mortem* examination being made, there were found multiple abscesses in the lungs, with the large *ante-mortem* clot as above described, and which was, no doubt, produced by the absorption of septic matter from the lungs, aided by weakness of the heart's action. He also exhibited a clot from the pulmonary artery, and with the object of showing the difference in their structure and formation, a stratified thrombus from the superficial inguinal veins.

Professor Walley next exhibited to the members his new instruments (as recently described in the journals), both of which had been considerably improved since they were first constructed, but were not yet quite as perfect as he intended to make them. The compound ecraseur and concealed bistoury was so constructed as to enable the veterinary surgeon to use any of the following instruments without danger, and with ease, internally, viz., blunt, sharp, convex, straight, or Chassaignac bistoury ; sharp or blunt spatula, embryotomy saw, and blunt or sharp hook, vulsellum forceps, trocar and canula, wire or chain ecraseur, etc. These various instruments could also be used for ordinary external purposes, by the aid of a small universal handle, and, in addition, drawing-knives, seton needles, directors, and torsion forceps. The price of the instrument when complete and perfected, would not much exceed that charged for some of the ecraseurs alone. The aspirator, Professor Walley stated, he had found to act splendidly in a case of Hydrothorax in a dog ; but he remarked that such an instrument, while invaluable in emptying cavities in which there were no loose soft organs, or where these organs, as the lungs, had been compressed by the effusion, was inferior to an ordinary trocar and canula in tapping the abdomen, as in the act of aspiration the bowels were drawn against the point of the needle and plugged it up. The Professor also remarked, in a case of pre-pectoral fibrous tumour which he had treated by irrigation with iodine by the aid of the same instrument, and which was entirely resolved in the course of ten days or a fortnight, a small thrombus, terminating in an abscess, formed in one of the superficial veins a little distance below the seat of the operation, but it did not prevent the animal working ; in fact, it was put to work eight days after the operation. In the removal of large quantities of fluid from cavities, the instrument could be used as a double-action syphon without the possibility of a particle of air passing into the cavity, and with much greater rapidity than by its use as an aspirator.

A vote of thanks was unanimously passed to Professor Walley for his kindness in coming among them, and the Professor having replied, Mr. C. STEPHENSON introduced the Penal Clause for discussion. He said, firstly, Has the time come for it? I say, No ; and what is more, the time for it is a long way off yet ; we cannot make a veterinary surgeon by an Act of Parliament, for as Mr. Fleming said, veterinary surgeons are born, not made. The tendency of the schools at present was to turn out non-practical men, and instead of a penal clause there should be an apprenticeship clause. The practical examination should be more strict. A long discussion here took place

between Professor Walley and Mr. Stephenson, the former maintaining that practical students and sons of veterinary surgeons, as a rule, made the worst students; the latter saying, if such was the case, the men now-a-days must be made of different stuff to what they once were. He asked, What better is the medical profession for their penal clause? and finished by moving that, in the present state of the veterinary profession it is not desirable to press for the penal clause.

The President and Mr. Elphick agreed with what Mr. Stephenson had said.

Mr. GOFTON thought that in justice to our clients as well as ourselves, we should be protected; if people desired to employ the quack, by all means let them do it, but they should know whom they were employing. He moved, "That the Association petition the Royal College of Veterinary Surgeons in favour of the penal clause."

Mr. H. Hunter Mr. W. F. Mulvey, and the Secretary spoke in a similar strain to Mr. Gofton. On the motion being put to the meeting, Mr. Stephenson's was carried by the casting vote of the Chairman; but it was ultimately agreed, as there was a small attendance of members, the discussion should stand over.

G. R. DUDGEON, *Hon. Sec.*

NORTH OF IRELAND VETERINARY MEDICAL SOCIETY.

A MEETING of the North of Ireland Veterinary Medical Society was held in the Thistle Hotel, Belfast, on August 25. A large number of professional gentlemen were present, including several members of the medical profession. The minutes of the last meeting having been read and approved of, Mr. J. B. Dunlop, Vice-president (who occupied the chair in the unavoidable absence of the President, Mr. J. Doris, Cookstown), related a case and showed the specimen of a membranous cast from the bowels of a cow, ten yards in length. Mr. Dunlop also related a peculiar case of ulceration in the palate of a bull.

Mr. William J. Johnson showed a calculus (which had been taken from the bowels of a horse) of great size. The case was one which occurred in the practice of the Secretary, the patient being a post-horse. It had never shown any symptoms of abdominal pain until a week before death, about which time it sustained an injury by the vehicle to which it was attached coming in contact with a car. Symptoms of Colic followed, Enteritis supervening, followed by death. The Secretary next related a case of poisoning in a pony, and said the symptoms which he noted during the fifteen minutes the pony lived after he saw it, were almost identical with those occurring in poisoning by aconite. The members present were of opinion that aconite was the agent, but no definite idea could be given as to how the aconite could have got mixed with the provender supplied to the pony, which was the same as that given to several other horses at the same establishment.

Professor McCall, Principal of the Veterinary College, Glasgow, who was very kindly present, read an interesting and highly instructive paper on "Chorea in the Dog" (particulars of which I hope to be able to send hereafter), and illustrated his subject by exhibiting several diagrams and wax specimens.

A unanimous vote of thanks was awarded to Professor McCall for his paper. He expressed a hope that at some future period he might follow the above subject, and introduce "Stringhalt" and "Shiverer" in the horse.

Votes of thanks were also passed to the members who had given communications, and to Mr. Dunlop for his dignified conduct in the chair when a pleasant evening was enjoyed.

GEORGE KIDNEY, *Hon. Sec.*

THE AUSTRALASIAN VETERINARY MEDICAL ASSOCIATION.

IT gives us great pleasure to announce the formation of a Veterinary Medical Society, under the above title, at Melbourne, Australia. It is much to be regretted that it was not established years ago, as there has been the greatest need for it. It now starts under the most favourable auspices, having for its first president The Hon. Sir Charles MacMahon, Bart., and Vice-presidents J. P. Vincent, M.R.C.V.S., and Graham Mitchell, F.R.C.V.S., with Mr. W. T. Kendall, M.R.C.V.S., as Secretary, Baron F. Von Mueller, F.R.S., as Botanist, and Mr. W. E. MacIvor, F.C.S., as Chemist. It numbers seventeen members, and fourteen Honorary Members, nine of the latter belonging to the mother country, two to Canada, and two to the Continent.

This, the latest addition to the now considerable number of Veterinary Medical Societies, has our very best wishes for its prosperity. We doubt not, from its composition, that it will benefit the Australasian colonies as much as it will advance Veterinary Science in them, and promote good feeling and a generous professional spirit among our colleagues in that great land on the other side of the world, which we are proud to claim as a cherished section of the mighty empire of Britain.

BRITISH MEDICAL ASSOCIATION.

THE Public Health Section of the Association met at Cambridge, on August 13th, under the Presidency of Dr. Acland, F.R.S., Regius Professor of Medicine at Oxford University, when there was a discussion on the question as to what diseases are communicable to man from diseased animals used as food.

Mr. VACHER (Birkenhead), in opening this discussion, desired to draw attention to the exact words in which the subject was stated—What diseases were communicable (able to be communicated) to man from diseased animals when used as food. This, it was pointed out, was altogether a different topic from that which occupied the attention of the Health Section of the Association two years ago—viz., "the diseases of animals rendering them unfit for food." The one was a question of judgment, of expediency, of relative fitness or unfitness; the other, a question of fact, pure and simple. It was well to bear this in mind, as it would tend to hold speakers to the matter before the Section. If exception were made in respect of diseases known by the presence of cestoid or nematoid parasites, it was surprising how few animal diseases, ordinarily met with or likely to occur, were even suspected of being communicable to man. The case against meat infected with encysted parasites was so clearly proved, there was no object to be gained in debating it. With this exception, the only animal diseases there was at present, or had been, ground for regarding as transmissible to man through ingested meat were:—1. Cattle-plague; 2. Swine-typhoid; 3. Epizoötic Pleuro-pneumonia; 4. Foot-and-Mouth Disease; 5. Anthrax and Anthracoid diseases; 6. Erysipelas; and 7. Tuberculosis. 1. Cattle-plague was suspected of being transmissible, because of the supposed resemblance between it and Enteric Fever. In both diseases one of the more prominent symptoms was Diarrhœa, and in both, conspicuous pathological lesions were found in the small intestine, especially in Peyer's patches. When, however, Murchison, Gamgee, and others showed that the resemblance was only in appearance, the transmission of the disease to man was discredited. Nor was Enteric Fever the only human malady to which Cattle-plague was thought to be related. So recently as 1865, Dr. Murchison published a paper arguing in favour of the ancient theory that Cattle-plague was Small-pox; and it had been also compared to human Typhus, Scarlet Fever, Erysipelas,

Influenza, and Dysentery. All these theories as to kinship between the epizoötic and specific human diseases were now abandoned, and those who still maintained the communicability of the disease, held that it communicated itself. A few instances were on record where a human being, after accidental inoculation with fluids from a diseased carcase, had shown a vesicle or other symptoms different from those of ordinary Pyæmia. Still the possibility of conveying even this mild form of the disease to the eaters of infected meat was not supported by a single recorded instance; yet experiments, whether such food would convey infection, must have been tried millions of times, as was obvious from the accounts of great epizoötics which had appeared from time to time since the days of Charlemagne. 2. Swine-typhoid, like the disease last referred to, was also at one time considered variolous; like it, it was confounded with Scarletina, and like it was also pronounced to be the exact counterpart of Enteric Fever in man. Dr. W. Budd, Professor Simonds, and more recently Mr. J. Wortley Axe, had written in support of this theory; and, as a result, for years precautions for preventing the spread of the disease to man were thought necessary, and taken. Finally, by way of adding one more to the many misleading doctrines already current with reference to this disease, Fleming had given sanction to the old views of Reynal and Roll, and classed Pig-typhoid with Anthracoid diseases. The various views thus put forward as to Pig-typhoid being the precise pathological equivalent of certain specific human diseases had one by one been abandoned; and in surrendering the theory that Pig-typhoid was kin to human disease, the dread of being specifically infected by infected swine had been also surrendered. Now, if the sale of such meat was stopped, it was because it was altered in quality, and diminished in nutritive value, etc., and not from any fear of Typhoid Fever being communicated to man. 3. Epizoötic Pleuro-pneumonia, inasmuch as it was a distinctly contagious febrile disease, had been generally regarded as tainting the whole carcase of the animal affected, and warranting its exclusion from the meat-market. Probably this flesh was rightly condemned, but the statement that it could communicate disease to the consumer rested on very slender testimony. Slaughtermen and knackers had suffered from a kind of Pyæmia after preparing carcases affected with this disease, but such cases were examples of blood-poisoning (not necessarily specific) by inoculation. The only direct evidence of disease being communicated by the ingestion of meat thus tainted was from Livingstone, Letheby, and Gamgee. And in these records of transmission of disease it was not Pleuro-pneumonia or its analogue which was set up, but Anthrax in two instances, and a sort of toxic Colic in the other. On the side of the harmlessness of flesh thus tainted, there was the testimony of Reynal and Loiset, beside the Alfort experiments conducted in 1868-69, when cattle were fed on portions of diseased lung, and made to drink the fluid from diseased pluræ, and yet remained perfectly healthy. 4. Foot-and-Mouth Disease had been defined as "a contagious eruptive fever, affecting all warm-blooded animals and attacking man;" and the whole history of the disease during the long period it had been prevalent on the Continent, and during the last forty years in which this country had suffered so much from it, showed that this was indeed a disease upon man and beasts. "The communication of the disease to man," said Gamgee, "admits of no doubt." Raw milk from infected animals used as food had frequently transmitted the malady; and it had been conveyed also by inoculation. Wherever else the contagion rested, it was undoubtedly contained in the lymph from the vesicles; and if imperfectly cooked meat from an infected animal were eaten, it would, undoubtedly, place the consumers within reach of infection. 5. Under the term Anthrax so many diseases had been included, that the word no longer conveyed a definite idea. There appeared to be three tolerably distinct diseases coming under this head

—they were Splenic Fever (*Milzbrand, Sang de rate*), malignant pustule (*Karbunkelkrankheit*), and carbuncular Erysipelas (*Milzbrand-Emphysem*). The two first of these diseases were undoubtedly charbon. The other appeared to be the disease lately investigated by MM. Arloing, Cornevin, and Thomas, and said to be due to an organism peculiar to the disease and different from that found in *sang de rate*. The only way of ascertaining definitely if a carcase was the subject of Anthrax or Splenic Fever, was by instituting a search for the bacillus anthracis. As it was ordinarily of the length of the diameter of a blood-corpuscle, and often much longer, it did not require a high power to discover it. It was unnecessary to say much on the facility with which the disease could be communicated. Experiment showed that it could be as readily conveyed by food as in any other way. If any food contained live bacilli or their spores, the consumer was in peril; and the tenacity of life of these spores was so great, that it was impossible to assign a limit to it. 6. In respect of Erysipelas, the communicability of this disease to man from infected food, though exceedingly probable, was scarcely capable of direct proof. In the first place, the malady was quite as common in man as in animals; and secondly, it occupied such a unique position between general and local diseases, specific and simple diseases, that when it occurred it was impossible to say whether a contagion had been inserted or otherwise come into existence. However, Erysipelas, sthenic or asthenic in type, was so often met with, in sheep and pigs especially, that the possibility of its conveying a specific infection should not be overlooked. Flesh scarcely showing physical signs of disease might be actively infective, research having shown that the visible line of extension in Erysipelas was always pioneered by Bacteria in the lymphatics, the organisms being identical with those found in the sensibly affected parts. Tuberculosis of animals, better known as *Perlsucht* from the general rounded shape of the deposits found, must not be too readily assumed to be the same as human Tuberculosis. Animals affected with it did not, as a rule, show signs of wasting, and the morbid appearances had no great resemblance to those noticed in Phthisis as it occurred in the human subject; however, the microscopic characters distinguishing true tubercle were present. *Perlsucht* had been long ago supposed to be Syphilis and to transmit this disease, and the sale of the flesh of affected animals was not permitted in consequence. More recently, Virchow had classed it with Sarcoma, owing to the similarity between the giant-cells and myeloid multinuclear cells. It was only of late years that the disease had been charged with conveying tubercle to the consumers of milk or flesh from tainted animals. A well-marked distinction between the human and bovine disease was, that the matter of the first was deposited in the glands and in the alveoli of the lungs, while the matter of the second was deposited in the subserous and interlobular connective tissue. Even supposing that the unity of the bovine and human diseases were proved, the communicability of the disease from dead oxen to man would not follow. Feeding animals with deposits and glands from diseased animals resulted in setting up various lesions more or less resembling tubercle in the herbivora, while the carnivora remained uninjured. Such indirect evidence had really little bearing upon the point at issue, and direct evidence of the bovine disease having been communicated was wanting. Dr. Creighton had lately published some notes of eight cases of a variety of tubercular disease in man which very closely resembled the *Perlsucht*; but there was no evidence that any of the subjects affected had consumed infected flesh. Of the seven diseases referred to, Mr. Vacher thus held that but two, Foot-and-Mouth Disease, and Anthrax, can as yet be pronounced communicable to man by ingested flesh. The remaining five he did not regard as innocuous, but merely submitted that at present their communicability remained unproved.

Mr. Fleming, Army Veterinary Inspector, who was specially requested by the President to speak on this subject, reviewed the evidence brought forward by Mr. Vacher as to the effects of the flesh of diseased animals on the public health. He pointed out that from his own experience and that of others, there appeared to be no danger in consuming the flesh of animals affected with Rinderpest, contagious Pleuro-pneumonia, and Foot-and-Mouth Disease, though the milk of the latter might convey the malady. He adduced instances in proof of this assertion. Mr. Vacher, he observed, had rather confused his subject, and had omitted some diseases which rendered the flesh of animals dangerous—especially Septic and Parturient Fever in cows and other creatures, and Glanders in solipeds. He warmly urged the necessity for Chairs of Comparative Pathology being instituted in our Universities, and alluded to the efforts continually made by Dr. Acland to accomplish that object.

A paper was then read by Mr. Fleming on "Bovine Tuberculosis in Relation to the Public Health." For many years Mr. Fleming's attention had been directed to bovine Tuberculosis, and he had suspected its contagiousness a long time before Villemin experimentally demonstrated its inoculability. The results of his experiments were verified by others; and Gerlach, Chauveau, Colin, and many more showed, in addition, that it could be transmitted by the ingestion of the flesh and milk, as well as tuberculous matter, from diseased cattle. In 1874, Mr. Fleming published a paper on the malady in the *British and Foreign Medico-Chirurgical Review*, pointing out the evidence in favour of its transmissibility, and the serious nature of the disorder from a sanitary point of view. In *Veterinary Sanitary Science and Police*, published in 1875, it was included as a malady which should be brought under legislative control; and on several recent occasions he had urged the necessity for its being recognised as a most dangerous disease, so far as the public health was concerned. No disease of animals more deserved attention than this, because of the grave danger the public incurred through consuming the flesh and milk of tuberculous cattle. There were no means of arriving at any conclusions as to the extent to which the disease prevailed among bovines in this country, as there was no sanitary inspection of cowsheds or slaughter-houses; but it appeared to be largely on the increase, especially among the higher-bred stock, and was well known to all who had to do with cattle. On the Continent, it was estimated that from one to five per cent. of all cattle were tuberculous. The inoculability of Tuberculosis could not be a matter for dispute; and that the malady could be produced by feeding with tubercular matter, or the flesh or milk of diseased cattle, was equally proved by experiment. Those experiments which demonstrated that milk was viruliferous were very striking, and particularly the experiments of Bollinger, Toussaint, and Puech; generalised Tuberculosis being surely and easily produced in pigs, rabbits, and guinea-pigs, by the ingestion of raw milk. There was also evidence to show that cooked milk might also be infective. The juice of flesh from a tuberculous cow had produced the disease in a pig when injected subcutaneously; and a few drops of blood from a man affected with Tuberculosis, when injected beneath the skin of a young pig, caused local and general Tuberculosis. The last experiment was most important when considering the question of animal vaccination, in which calves were used for the cultivation of the vaccine virus. Accidental infection of calves and pigs was far from rare; indeed, Mr. Fleming attributed the existence and spread of the malady to calves being suckled by phthisical cows. The accidental infection of people might be frequent. A disorder which caused one-fifth of the general mortality demanded earnest investigation, and the adoption of every possible precaution. It was not improbable that infantile Diarrhœa, Scrofula, and Tuber-

culosis might to some, if not to a large extent, be attributed to the existence of this bovine disorder. The existence of Tuberculosis among cattle should lead to prompt measures for its suppression. Diseased cattle should not be bred from, and ought to be treated as dangerous to other animals. The milk of tuberculous cows should invariably be condemned, as it was not only very poor in quality, but was highly dangerous. All cattle yielding milk should be carefully inspected, and the early symptoms of the malady thoroughly studied, as its detection in the early stages was often difficult. Town-dairies ought to be specially watched, as in them the disease was most common. The flesh of all animals affected with Tuberculosis should be condemned and destroyed. Public *abattoirs* ought to be instituted everywhere; and all animals sent to them, as well as all carcases about to be issued from them for food, should be certified by a competent inspector as innocuous.

The PRESIDENT said he should be compelled to leave in a few minutes, and he hoped, therefore, that the Section would now permit him to say a few words on the subject which had been engaging attention. It was not without intention that Mr. Fleming was requested to follow Mr. Vacher. It was of great importance that it should be clearly understood by the public, as it was by scientific men, that the study of the pathology of domestic animals could not be wholly or properly separated from that of man, and *vice versâ*. Any one who heard, or who would read, Mr. Vacher's and Mr. Fleming's remarks on this subject, as well as those contained in various of Mr. Simon's Reports, in the American National Health Reports, and in numerous original works, would be entirely convinced of this. It was for this reason that he (Dr. Acland) had long urged the formation of a well-endowed Chair in Oxford of General and Comparative Pathology, one that should systematically treat of all that was established, and new, in regard to animal diseases; and should carry on researches therein. Oxford, being in the centre of an agricultural district, would be in some respects a very suitable locality. He dared say that some members of the Section had been present at the address which had been delivered that morning by Dr. Michael Foster, on the inseparable relations of physiology to general pathology. Dr. Foster did not get over the whole ground, for, in addition to those points which had been alluded to, there was the general question of comparative pathology. He would now venture to say that nothing more remarkable than the discussion which had taken place that day had occurred in any of the Sections, because the scientific subjects which had been discussed affected the whole human race. In the paper by Dr. Foster, they heard that physiology and pathology were one, and his remarks confirmed what he (the President) had repeatedly pointed out for many years past, that the anatomical and physiological teaching at Oxford would be incomplete without the elements of general pathological science, in the sense just now explained; and for this plain reason, that the tendencies to decay and death were just as much an integral part of the living economy as were development, growth, and maturity. The Chairs of Physiology, Comparative National Health, and General Comparative Pathology, with proper laboratories and appliances, were all needed in the present day for the biological series, and even then they were inadequate to the vastness of subjects involved. Pathology was merely a disturbance of the healthy functions, and the proposition concerning disease amongst human beings applied to animals. He would not presume to discuss the questions which had been raised as to the possible spread of Tuberculosis. About this, they were only in their infancy; they were just learning to talk about it, and to mark, and to observe, by means of the wonderful progress in the field of research; and, in this connection, he would say that they had many opportunities, through their medical officers of health, of founding a great sanitary

science for the human species. He cordially endorsed the remarks of Mr. Fleming as to the importance of Government understanding this subject. And Government would come to understand it if they went on steadily working together in their several departments, harmoniously and without exaggeration, for nothing repelled the public man so much or so quickly as exaggeration. In his concluding remarks, the President suggested that, as it would be idle for them to come to a conclusion on the subject, they should continue the discussion at the meeting of the International Congress in London next year. If the subject of comparative pathology were not already entered on the programme, he would do his utmost to bring that end about.

Dr. VACHER, Mr. FLEMING, and others cordially concurred in these opinions.

Dr. BOND moved that the Section tender a hearty vote of thanks to Dr. Acland for the able manner in which he had presided over their deliberations.

The motion was agreed to, and Dr. Acland returned thanks.

On the proposal of Dr. ARMISTEAD, the chair was taken by Dr. FRANCIS BOND, of Gloucester.

Mr. E. J. SYSON (Huntingdon) continued the discussion.

Dr. CAMERON (Dublin) said he did not suppose that any medical officer of health had had more opportunities of observing the contagious form of Pleuro-pneumonia in cows than he. For twelve or fourteen years there had been an admirable system of slaughter-house inspection in Dublin. Four constables were expressly engaged in that duty. He had examined from four hundred to five hundred carcases each year for many years past, and he had been the means of sending many persons to prison. He did not agree with the observations of Mr. Fleming in reference to the danger of man from eating the food of cattle known to have been afflicted with Rinderpest. Because they had no knowledge that dangerous results ensued, they should not allow the meat to enter the market. A well of water was known to be in an unsanitary condition, or the air in certain tenements was known to be unhealthy, and yet the people in the neighbourhood were quite healthy. Were the authorities, therefore, to allow the unhealthy conditions to continue? He should certainly say, No. If, therefore, an animal were known to be in an advanced stage of Pleuro-pneumonia, its lungs increased in weight sometimes four or five times, and if these were charged with pus, how could the mass of that animal's body be in a healthy state? He had abundance of evidence that bad results ensued from the consumption of this food. The poorer classes in Dublin read the papers, and as soon as they saw that a person had been prosecuted for having the carcase of a diseased animal in his possession, they came to him and complained that they had bought meat from this particular person, and that they had afterwards been unwell. He had had so many opportunities of observing animals affected with that disease, that he could diagnose it almost at once. He would like to know the medical man who would use such diseased flesh although he declared it to be wholesome. At the present moment, the guardians of the poor in Dublin, notwithstanding that they could buy this flesh cheap, would not give it to the paupers. If they did, and the paupers knew of it, an insurrection would be the result. If these carcases were sold for what they really were, and if they were not really bad, he would not interpose; but it was not right that they should be sold as presumably good.

Mr. JABEZ HOGG (London) said that so long as they knew that there was a predisposition on the part of some members of the population to take disease from eating the food of these animals, it was the duty of the officers of health to prevent the sale of that food. That, he thought, was the best way of dealing with the question. Then as to the examination of milk,

he had to state that the dairy officer in London had power to condemn the sale of milk.

Dr. E. HAUGHTON (Upper Norwood) asked whether, in the event of the new "calf-lymph" being supplied bv the Government for public vaccination, the flesh of calves used for this purpose would be sold as food? His reason for asking the question was, that Sir Thomas Watson, in an article in the *Nineteenth Century*, had publicly stated his opinion that a calf after having been variolated in sixty places on its shaven abdomen, "might be returned to the butcher none the worse for what it had undergone." He was sure that the public would form their own opinion about this, as they had already done when the same thing was first tried by Dr. Blanc on his return from Abyssinia. His experiments were brought to a close by the unprofitableness of the transaction, as the butchers, after awhile, found that they could not sell the calves as food—for the people had found out that variolous matter had been used in order to obtain the vaccine lymph, which he was daily sending all over the country. It might be a question how much or how little injury would be done by the public sale of the flesh of these animals; but the public had a right to know the facts; and it is possible that the experiment of introducing "vaccine lymph" from this source would be brought to an abrupt close by the public entirely declining to buy meat which had been previously used in this manner.

Mr. CEELY (Aylesbury) said that cows used for the transmission of vaccine were constantly sold, and he believed them to be perfectly good. He could corroborate Mr. Fleming's remark about the flesh of animals killed for Rinderpest. He had eaten such flesh.

Dr. DRYSDALE (London) said, with respect to the communication of Tuberculosis from the lower animals to man, that he would very much question the fact. From his own observation in a consumption hospital in London, he did not think it was very probable, because, if it were the case, how many of their children might they expect to find afflicted with Tuberculosis if the statement were true that the disease could be communicated through the milk? He wished that this point might be thoroughly cleared up, because it was frightening everybody.

Dr. STEWART thought a Committee of the Association should be appointed to take up this matter and follow it out.

Mr. FLEMING remarked that it was far from his intention or wish that the public should be fed on diseased flesh, and the remarks that had been made proved that he was in the wrong rather than otherwise about Tuberculosis. He, however, had given his opinion on the facts which had been brought under his own observation. He did not say that the flesh of animals which had suffered from Pleuro-pneumonia should be given to the public without their knowledge that it was diseased; but there was no direct evidence that disease was the result of its consumption. However, the flesh of such an animal could not have such nutritive properties as the flesh of a healthy animal. This he would say, that thousands and hundreds of thousands of animals had been slaughtered and sold for food which were in this condition.

The CHAIRMAN then proposed the following resolution:—"That, in the opinion of this Section, the subject of the communicability of disease to man by animals used by him as food urgently demands careful inquiry, both in regard to the actual state of our knowledge thereon, and to the legislation which is desirable in connection therewith; and that the Committee of Council of the Association be invited to appoint a Committee for the purpose of reporting on this matter."

Dr. CAMERON seconded the motion, which was agreed to.

Army Veterinary Department.

Gazette, September 28th.

VETERINARY DEPARTMENT.—Veterinary Surgeon on probation, George Aitken, to be Veterinary Surgeon.

Gazette, October 15th.

1ST LIFE GUARDS.—Veterinary Surgeon, First Class, F. Walker, from the 7th Hussars, to be Veterinary Surgeon, vice Veterinary Surgeon, First Class, M. Mence, retired on half-pay.

VETERINARY DEPARTMENT.—Veterinary Surgeon, First Class, J. Hammond, from the Royal Artillery, to be Veterinary Surgeon, First Class.

Obituary.

WE regret to have to announce the death of Mr. A. Pitcher, M.R.C.V.S., Royal Horse Artillery, which melancholy event took place at Brighton on October 1st. Mr. Pitcher was on half-pay through illness, and had been in bad health for a long time. He was only thirty-four years of age, and graduated in 1866.

The decease is also announced of John Bennett, M.R.C.V.S., Stony Stratford, Bucks, who graduated in 1812. Mr. Bennett has been entered on the Register for some years as "the father of the profession."

On October 15th, another of our senior members departed this life, in the person of Mr. Edmund Charles, M.R.C.V.S., of Clarges Street, Mayfair, a graduate of 1830.

Notes and News.

INFLUENZA IN THE UNITED STATES.—A visitation of the Influenza, or "epizoöty," which passed over the United States a few years ago, has again come upon that country. It made its first appearance in Boston, and afterwards spread to Albany, New York, Brooklyn, and adjacent towns. The disease is reported to be of a mild type; coughing and bronchial disturbance incapacitating the horse for labour, but not as yet showing any dangerous symptoms. This "epizoötic wave" is expected to extend over the country as the preceding wave did.

IMPOSITION IN AUSTRALIA.—At the Melbourne District Court, on August 2nd, before Mr. Call, P.M., James Leith and John R. Miscamble, described as veterinary surgeons, were summoned for illegally selling poisons. The prosecutions were taken at the instance of the Pharmaceutical Society of Victoria, for whom Mr. Dan. Wilkie appeared, and stated that public attention had been lately drawn to the great number of deaths from poison, and as it was known that there were numbers of persons selling without the slightest restriction, the society, in the interests of the public, had taken the matter in hand. It was shown in evidence that arsenic and tartar emetic had been sold, and that none of the requirements of the Act as to registration or labelling had been complied with, and the defendants, although styling themselves veterinary surgeons, had no legal qualification. The evidence of

the person who purchased the articles, and of Mr. C. R. Blackett, who analysed them, being taken, the Bench fined the defendants 1s., with £3 3s. costs, at the same time intimating that any future cases would be severely dealt with. Mr. Wilkie drew the attention of the Bench to the smallness of the costs allowed. He thought that it was only fair that as the prosecution had been taken on public grounds, the society should not be losers.

ATMOSPHERIC ELECTRICITY IN THE SAHARA.—In some tropical countries the electrical phenomena of the lowest atmospheric layer are much more marked than in temperate climates. Some interesting facts in this connection have been lately given by M. Amat from experiment in the Northern Sahara. Without insulating himself from the ground, he could often get long sparks (0·05 in. to 0·07 in.) by simply passing a pocket comb through his hair or beard. This succeeded best in dry, hot weather, on return from a long excursion over arid plains, the most favourable time being in the evening from 7 to 9 o'clock. Some lower animals, and especially horses, present electric phenomena still more strikingly. On hot summer days, one sees on Arab horses long hairs diverging from the middle of the tail. Caressing the tail with the hand, a number of crackling sounds are heard, and if it be in darkness, sparks are seen. The electricity liberated by the tails of horses M. Amat finds to be positive. Man, in direct communication with the ground, does not show such an accumulation of the electric fluid as the horse does, and friction is necessary to develop it. The horn of the horses' hoofs seems to act as an insulator.

THE TRANSMISSIBILITY OF TUBERCULOSIS.—Dr. Cullimore has the following observations in the *British Medical Journal*, with reference to the transmissibility of human Tuberculosis to animals. "About six years ago, when I was acting as Residency Surgeon at Mandalay, a Bengalee servant, suffering from advanced pulmonary consumption, with copious expectoration, came under my notice. One of my dogs—a pariah—developing his natural talents as a scavenger, was, as I afterwards learned, in the habit of frequently visiting the house of the sick man, and lapping up the expectorated matter. How long this had been going on I cannot with certainty say; but a few days after the death of the man the dog appeared out of sorts, refused his food, rapidly emaciated, had a cough which increased quickly in severity, and was attended later on with a tenacious and glairy discharge from the mouth and nose. The stethoscope detected moist *rales* with rhonchus and sibilus over a greater part of the chest. These symptoms continued to grow worse for a week or ten days, when convulsive fits of about five minutes' duration, and occurring several times in the course of the day, made their appearance. These fits were of an epileptiform or tetanic character. The poor animal moaned a good deal and appeared in great pain, as he lay on his back reeling and kicking about. On the second day from the commencement of the fits, and about the twelfth from the beginning of the disease, there being but little hope of recovery, a large dose of prussic acid was given, which speedily proved fatal. The *post-mortem* inspection was limited to the contents of the skull and the chest, as these were the parts supposed to be more prominently diseased, and in both were found lesions to account for the symptoms during life, and their probable cause. Both pleuræ were adherent, the adhesions being recent; and the lungs were studded with softened patches, in varying stages of caseous degeneration, many of them containing muco-purulent matter, with which the minute and larger bronchi were also clogged. I did not notice the state of the bronchial glands. The brain did not show much signs of disease, and nothing similar to what existed in the lung. The membranes appeared thickened and congested, and on cutting them a good deal of serum exuded; there were no

tubercular or cheesy deposits; the whole mass was uniform, and appeared softish, but I had no previous experience of the canine brain, and cannot speak with certainty.

"*Remarks.*—This case shows that the lung of the dog is rapidly susceptible to the influence of the *materies morbi* of tubercular lung-disease, even when introduced into the system *via* the stomach, which, according to Von Cohnheim, is the slowest and least effectual mode of introduction; and it is the more worthy of notice, as he also states that dogs show little susceptibility, while rabbits and guinea-pigs have it in a remarkable degree. As European dogs are liable to degenerate in the tropics, and become a easy prey to disease, I may say that this dog was a native, had previously enjoyed good health, and, as the weather was not cold, I have no reason to believe that this acute affection was due to any other cause than contagion—the tubercular virus being fresh, and therefore in the state of greatest activity or supposed vitality. I regret that I failed to examine the contents of the abdominal-cavity, as it would have helped to elucidate the order of organs attacked. The rapid emaciation is suggestive of mesenteric deposit and disease of the abdominal glands, and that such disease, if not of an earlier date, as the experiments of Cohnheim would lead us to believe, was at all events contemporaneous with that of the lung and pleura, and that both were long antecedent to lesion of the brain. I am myself inclined to think that if the lungs were not the organs to suffer first, they were, judging from the extent of the disease, at all events the organs to suffer very early and most severely, which may be due to the greater facility for arrest and exposure which the anatomical formation of their capillaries affords. Be this as it may, this case is somewhat exceptional, from the shortness of the stage of incubation, the comparative less susceptibility of the animal infected, the mode of introduction, and the rapidity of the disease set up, with the probable sequence of the parts attacked: all of which must be set down to the somewhat prolonged introduction of fresh tubercular poison from the lungs of a person in the last, and presumedly most contagious, period of Phthisis. As it is open to say that the virus may also have been inhaled, I do not think this could have been so to an extent sufficient to account for the early severity of the lung-affection; for the other members of the family escaped *in toto*, and everybody knows that people are exposed to such risks every day without any immediate injurious results."

A GIANT HORSE.—A horse, foaled in Ohio, has been purchased by Barnum for exhibition. It is said to be seven feet high (twenty-one hands), and weighs 2,450 pounds—a pretty tall business in horses, Barnum calculates.

Correspondence, etc.

THE CASTRATING ECRASEUR.

To the Editor of the VETERINARY JOURNAL.

SIR,—As we are constantly receiving letters from professional friends, asking for particulars with regard to Farmer Miles' ecraseur and ropes, we feel that it may be interesting to the profession generally to know what we have done with them this season. If you are of the same opinion, perhaps you will oblige us with space in your next Journal for the following account of our work.

We have performed 179 operations with the ecraseur since the end of last May, as follows :—

Rig horses of all ages	10
Stallions "	12
Yearling colts	129
Schirrous cords	2
Bulls, 2 and 3 years old	5
Bulls, yearlings	21
	179

We have not had a single complaint, nor yet one death. In fact, everybody has been very pleased with the work, and particularly so with the method of casting and securing the animals for the operation. In no case has there been excessive swelling or secondary hæmorrhage ; the colts have all been turned out immediately after the operation, and the stallions and rigs have been kept at work. We have met many veterinary surgeons who, before seeing the operation, have declared they would never discontinue the actual cautery or clams ; but after witnessing one or two operations, they have determined to use the ecraseur. Without any reserve, we confidently recommend the instrument made by Krohne and Sesemann, of Duke Street, Manchester Square. Other instruments we have seen, but are inclined to agree with Farmer Miles, that they *differ* in one or two essentials.

A few simple instructions are required to properly manipulate the ecraseur, and to secure the animal in a satisfactory manner. These cannot be explained in a letter, but we shall be glad to give practical instructions to any *professional* gentlemen, if they will find work to compensate us for our trouble and to cover the expenses of the journey. We do not wish this offer to be considered as an advertisement, but we are so confident of the success of the operation, that we shall be glad to see it more generally adopted. We know of several veterinary surgeons who have tried the ecraseur this season, and through not understanding how to manipulate it, have met with failure and loss, and have put it away in disgust.

The above refers to the castration and securing of properly-developed colts or stallions. The operations for ridglings, at present, we are not allowed to disclose. We remain, sir,

Yours faithfully,

RUSSELL (F.R.C.V.S.) AND WARTNABY (M.R.C.V.S.)

Grantham, *September.*

THE VALUE OF APPRENTICESHIP.

To the Editor of the VETERINARY JOURNAL.

SIR,—I am pleased to find this subject is now under discussion, and I trust it will be thoroughly ventilated ; as you know, sir, I am a strong advocate for the apprenticeship clause, and I am made so from an experience of twenty-five years.

I do not for a moment pretend that I anticipate an apprenticeship will make, or help to make, successful practitioners ; but I do anticipate that the *initiation* will prevent young men entering a profession for which they are utterly unfit—not, let me remark, that they are bad young men, but mentally and physically incapacitated—men who would never have entered a college as a student had they but tasted the *rudiments* as "Japhet" did in the chemist's shop in Cow Cross Street, Smithfield.

Others there are, although fit mentally and physically, are in abject ignorance of the habits of the domesticated animals they are supposed to treat. Before a young man adopts the "sea" as his profession, his parent or guardian, as a general rule, advise him to take a short trip *to taste;* then if he likes it, *chart and compasses* follow.

I am convinced, from experience, that the man who has had some *initiation* ere he enters a college, if he be an intelligent man, takes a wide start in the field of scientific research; for he enters with a knowledge of the natural habits of the horse, ox, cow, sheep, goat, pig, dog, and cat, and knows all those little minutiæ so necessary in general practice, and which can only be acquired by *working at the plough*. I remember a young practitioner asking me what a teg was, then a wether, then a tup, then a hogget, and so on. Now one may say this has nothing to do with science. True, but does it not show a want of that knowledge of the condition and habits of those domesticated animals we are supposed to know all about?

Then, again, in the examination of horses. Send a newly-fledged member, who has not seen practice, over to a large fair in Ireland or Wales, and let him purchase some horses for you; he will find it a very different task to that imposed on a professor at a college. Then send him to a farm to attend cows in parturition, and test his book and lecture knowledge (Fleming's excellent work on Obstetrics included); the farmer will soon discover the want of manipulative experience.

In the shoeing and foot department, again, a college does not offer too much scope in this branch.

The diploma speaks of "practice"; and if the holder lacks this knowledge, how can that diploma be correct?

I fully agree with the argument that rude rough-and-tumble practice tends to make a lad a sloven and rule-of-thumb man; but I trust there are enough good and earnest practitioners to be found willing to take well-deported young men under their charge for due initiation, as entered apprentices.

The initiation must, in my opinion, be made law, until such time as our colleges acquire farms and keep all the domesticated animals a veterinary surgeon is supposed to understand.

If men totally unfit, and without a knowledge of animals, desire to enter the profession, I say most emphatically they should be deterred, and allowed to find their own level out of it; for a profession is judged by the members thereof, and to load the profession with the *débris* of the human family must act as an impediment to professional progress; and God forbid that the profession should be still further degraded. Anything in human form cannot enter the police; it is not free trade there, the stuff must be sterling; other trades and professions are totally different from the veterinary profession, abounding in moral obligations.

The apprenticeship clause must tend to improve the morals and health of future aspirants to fame—"beings darkly wise."

As I fail to perceive any other way at the present time to make the student a practitioner, or in other words, "qualified *to practise* the Art and Science of Veterinary Surgery and Medicine," I must vote for the presence of the ability "to practise" before the diploma is issued.

I may be wrong in my deductions; but if so, it is in honesty of purpose. Frankness in the discussion and ventilation of a matter so important, is of the highest value. The question is *a serious one*, so I close with an earnest hope that the best men in the profession will speak out,

And remain,

Respectfully yours,

London, *Oct. 12th*, 1880. ROBERT WARD, F.R.C.V.S.

To the Editor of the VETERINARY JOURNAL.

DEAR SIR,—As the objects to be obtained by the Apprenticeship Clause are exceedingly beneficial to our profession, as well as to the student and his parents, I shall be glad if you can afford me space for a few words on the subject.

Before parents spend their money in educating their children for any particular business or profession, it is their duty, not only to themselves, but to their offspring, to endeavour to find out whether they are adapted for that occupation. If a boy is put to any kind of work he does not like, he never becomes proficient, simply because he cannot put sufficient energy into it to master the difficulties which must be overcome before he can succeed. Therefore I think, if for no other reason than this, it is worth while enforcing the apprenticeship.

We are all well aware that an apprenticeship cannot ensure success in practice, this, as is well-known, depending upon other collateral circumstances independent of professional ability. But there cannot be a doubt that it will assist the practitioner, and that very materially, by enabling him to overcome many of the difficulties which so frequently prevents the young and inexperienced graduate from progressing as quickly as he would wish. Moreover, it is the *only* preventive at our command against those gross errors which are sometimes committed.

There are many young men who obtain their diplomas without knowing how healthy animals should be managed, and the ordinary measures to be observed to prevent disease. When such men happen to come in contact with coachmen, grooms, farriers, horse-dealers, and our so-called "horseymen," they find themselves lost, simply because they have had no training in the small details connected with the general management of animals, which the above class of persons are so well acquainted with. If a veterinary surgeon cannot apply bandages, etc., and go about the animal he has under his charge in a horsemanlike style, these people are apt to despise him; and since we are brought into contact with such men, perhaps more than any other, it behoves us to make ourselves and our students thoroughly acquainted with these matters, so that we may avoid ridicule. If we wish our profession to advance in the public and scientific world, we must train our students to be masters of the Veterinary Art, as well as of the science; or, in other words, to use their hands as well as their heads.

If the opponents to Mr. Fleming's proposal base their opinions on what they have learned in this direction from the sister profession, I fear they overlook the analogies between the two. Although we are closely allied in a scientific point of view, still we differ widely in the so-called "practical" or working portion of our science. Therefore the training for each must be very different.

In the first place, the human practitioner has only one creature, and that similar to himself, to study and handle; so that if he will only consider the habits and general management of his own home, it will afford him one of the essentials of his practice.

Not so with the veterinary practitioner. He has not only to be acquainted with one species, but several, each having different habits, and requiring different management; and unless he go amongst them and takes pains to study them closely, he cannot become acquainted with this essential. Therefore a student ought to endeavour to obtain a knowledge of animals, etc., *before* entering college. It is owing to this knowledge that sons of farmers and horse-dealers, if otherwise properly educated, generally make good veterinary surgeons. "*We must know health before we can detect disease.*" A medical practitioner rarely, if ever, undertakes any operation of importance

by himself. The veterinary surgeon has to perform all manner of operations, very often single-handed. The human surgeon has various appliances which can be easily fixed; we, on the other hand, have to use apparatus difficult to manage, and requiring very careful manipulation; and unless a student has seen, and had some practice with these appliances, he will find himself greatly puzzled. Again, all students ought to get accustomed to handling the various instruments, and performing most of the minor operations under the guidance of a practitioner, before he is considered competent to undertake them on his own responsibility. In human surgery, I believe, the student has to perform most of the operations during his pupilage at the hospital, both on the dead and living subject. When we consider the difference between the practice of the two professions, I think that most will agree that the veterinary surgeon's, all things being considered, is the most difficult, and in some cases no analogies exist between the two; hence the necessity for us to maintain and uphold the apprenticeship which they have discarded as being useless.

We do not want, nor do we expect, the student to learn all the *minutiæ* of his profession during his apprenticeship; but I think he ought at least to be acquainted with the mechanism of the veterinary art, and the manipulation requisite for practising it. With the present arrangement of our teaching-schools, and even under any circumstances, I think the most appropriate time for the student to learn this is *before* he enters upon the details taught at the schools. My reasons for this are—*firstly*, the pupil will have acquired sufficient knowledge of manipulation and the general symptoms of disease, to be able to take full advantage of the little he can obtain during his pupilage at college; *secondly*, such knowledge prevents him from being disheartened by the ridicule of those who have been more fortunate in obtaining such instruction previous to their entering college; *thirdly*, it saves the teacher time and trouble in pointing out small details, and so leaves opportunities for acquiring more important knowledge.

The great disadvantage of the apprenticeship seem to me to be the difficulty teachers are said to experience in teaching students who have already learned; for Mr. Hunting says, in your last month's issue, that "the very fact of a man 'seeing practice' before he has been to college must either confine him to, or force him into, a rule-of-thumb groove out of which it is not easy to rise." Now, if a student's mind is not flexible and intelligent enough to distinguish between the *wrong* methods learnt from the practitioner, and the *right* ones taught at our teaching-schools, I fear he cannot be a fit and proper person to become a veterinary surgeon. We do not want these men, nor do I believe the majority of veterinary students are composed of such material. Therefore I agree with Mr. Hunting when he says that "the acquisition of experience requires that we should not *only* have a field for observation, but the *ability* to use it, and the power to verify our conclusions." Again, Mr. Hunting says, "A student fresh from college, who has not 'seen practice,' may have imbibed theoretical fallacies; but these he is able to correct by careful observation, by the test of experience." But Mr. Hunting does not inform us at whose expense this correction is made. With his permission, I will suggest that it is—1stly, at the expense of our profession at large; 2ndly, that of the practitioner himself; 3rdly, his patient; and 4thly, frequently his client's purse. If I mistake not, it is experience gained in this way that Mr. Fleming and his colleagues are endeavouring to obviate; and as far as I am able to judge rightly, by compelling the student to take as much of the corrective (experience), *before* he enters college, as possible, and not leave him open (more than we can help) to bring our profession into disgrace, by obtaining it during his first three or four years of practice. Moreover, I do not consider the Royal College of Veterinary Surgeons is

doing justice to itself, its members, or the public in giving diplomas to men without a sufficient guarantee of their ability. Therefore, I think it is quite time such a measure should be adopted. I hope this will also be considered a sufficient reason why men with no knowledge of animals should be prevented from entering the profession. To me it is ridiculous to conceive an examining body admitting a man to be a veterinary surgeon without such knowledge. And if we are to believe that experience can correct theoretical fallacies, how much more can we understand theoretical truths correcting any fallacies that might be gained previously?

Mr. Hunting also thinks that "utterly unfit men will receive pupils, and pupils will perforce, and not from inclination, put in just sufficient time and work to obtain the necessary papers of qualification." However true this may be, I fear the R.C.V.S. cannot, and ought not, to interfere with the parents' or pupils' selections in this matter, any more than they do with the school the student shall attend after apprenticeship. All the R.C.V.S. can do is to fix their standard of examinations, and trust confidently to their examiners for the maintenance of that standard.

As a matter of fact, however, a pupil must commence somewhere; and I think it is better to begin with broad general principles, and finally arrive at the more intricate special ones. Thus a student must first learn there are such things as domesticated animals in existence, and then be able to distinguish one from another by their outline and general conformation; then he should find out the kind (both in quantity and quality) of food they respectively live upon; and by comparing one animal with another of the same species, he learns the differences both in formation and action, and may even acquire some knowledge of some of the most conspicuous defects. When once the student has grasped these points (especially if he naturally takes to the study), I think he will find great pleasure in diving deeper and ascertaining the structure of the frame, and how it is put together (anatomy); this done, he naturally inquires as to the function of the various parts (physiology), and by uniting his original broad ideas with the knowledge of the more minute parts, he must arrive at a tolerably accurate idea of the whole animal economy. And arguing on the same principle, I see no reason why a student should not be taught the broad general principles of the veterinary art before he comes to study the more minute details taught at our teaching-schools. Therefore, Mr. Editor, I hope your proposal of teaching veterinary pupils a few of the broad matter-of-fact principles of the veterinary art before they dive into the more minute and exact principles of veterinary science will receive due appreciation and support at the hands of those interested.

I remain, Yours faithfully,

London, *October 11th.* G. A. B.

To the Editor of the VETERINARY JOURNAL.

SIR,—This subject, I fear, if exhaustively treated, would afford material enough for a whole number of the VETERINARY JOURNAL. So that, while expressing my views upon it, I am impelled to address myself more to the points touched upon by Mr. Hunting, in the last issue of the Journal. I feel that the proposal to compel a student to serve a legal apprenticeship (with properly stamped indentures) is a great step towards advancing, in every way, the abilities of the coming veterinary surgeon.

The benefit to be obtained is not only "some knowledge of animals, of diseases, and of drugs," which is an extremely supercilious way of expressing what is really a useful acquisition; but a knowledge of the conditions under which animals exist in health and in disease, the sort of people who look

after them, the kind of people who own them, the general management of the animals, their peculiarities, how to handle them, distinguishing points of breed, with the knack of judging of temperament to be dealt with, how to administer medicine, how horses are usually shod (and as a rule this is of a far higher character than that obtained at the practical instruction at college), the methods of restraint necessary, and the acquirement of rapidity and dexterity in applying them; and, not least, how to ride and drive—accomplishments not taught at college, and yet as necessary to a man engaged among horsemen as his eyesight. The veterinary surgeon should be a horseman, but not necessarily "horsey." During the apprenticeship all the duties of stable routine, the principles of ordinary feeding, the management of men, and a knowledge of ordinary professional charges and fees, are to be acquired: by that I mean, become so impressed upon the pupil that their application becomes automatic with him. Proceeding to "diseases," I may say that lectures on pathology are worthless in veterinary education, unless the recipient is able to observe and interpret signs or symptoms to some extent while receiving them; so as to be able to picture to himself correctly the condition of an animal from descriptions. Moreover, during apprenticeship, "some knowledge" is gained of diseases, which has never to be unlearnt, and it forms a good groundwork for enlargement, completion, and elaboration, even if the tutor be below, in capacity, the few which Mr. Hunting declares to exist. "Drug mixing" is useful knowledge, and a pupil's energies might be directed to worse; but my tutor, after eighteen months' had elapsed from the commencement of my pupilage, considered me competent to read and dispense a prescription correctly. Pharmaceutical knowledge of a useful order may be acquired during pupilage, by aid of a text-book, provided the pupil begins with a GOOD general education. Mr. Hunting's sarcasm upon the veterinary surgeon's "horse-flesh" gives an index to a deprecatory state of mind.

Even supposing the lucky youth to become pupil to an average practitioner (in spite of the mediocrity of his stud), what he acquires in two years is useful and his time is well spent, even at Mr. Hunting's moderate computation; but I am sure he acquires more—he acquires a general knowledge of the world, business habits, and if he be properly and legally bound, a discipline which is useful in his future career. An ordinarily observant pupil acquires thousands of useful facts that are not strictly professional knowledge, but which are yet not to be despised; for no man can obtain them at college, nor in six months elsewhere. If "success does not depend upon professional skill," as Mr. Hunting asserts, at least a passable quantity must exist; for the public is the jury who tries the question, and it is a numerous jury, and one that contrasts and compares results. Those in charge of young men must exercise that caution in selecting the tutor which is common in other professions, and although a "*decent*" practitioner might receive eight or ten pupils, I doubt whether a respectable one would accept that responsibility. Mr. Hunting's letter commences:—"The proposal to make an apprenticeship a compulsory qualification for the diploma, is, to my mind, a mistake and retrograde step." Further on he says:—"If we could insist upon an apprenticeship being served after one or two sessions at college, we should improve our practitioners and advance our profession, because," etc. At first he declares *all* apprenticeship before obtaining the diploma a mistake and retrograde step; but *he* soon takes a "retrograde" step, and announces that under a certain condition it would improve practitioners and advance the profession. Surely this is a great gain; but in the next breath but one he takes another "retrograde" step, and says:—"An apprenticeship, when voluntary, is bad enough, but if made compulsory will be simply a deception and a snare." And this after acknowledging that if an apprentice-

ship were made *compulsory* after one or two sessions at college, benefit would follow. *This* certainly looks like deception, and may possibly be a snare. I assert that it is good training to be an apprentice to an average practitioner, for want of a better method. An average boy should leave school at sixteen, and instead of idling his time at home, waiting to go to college (for he knows he cannot get his diploma till he is twenty-one*), he should be put to work; if not, he gets into dilatory habits—habits fatal to the most highly skilled man, besides having time to imbibe vices. Let him "mix drugs" rather than lie fallow and develop ideas which will far outvie those formed while an apprentice. I know, as a fact, that whether a man serves an apprenticeship or not, as a rule he goes to college with the idea of just obtaining enough knowledge to get his diploma; and, as a rule, the non-apprenticed is by far the most anxious as to the result. So the system of apprenticeship must not bear the blame of instilling that idea of "getting the diploma" into the pupils' heads.

One has "seen practice" and "wants his diploma"; the other has not seen practice and "wants his diploma," and that is all he seeks. Mr. Hunting remarks:—"From sixteen to eighteen years of age is a critical time of life. It is the time of all others, when minds are most flexible, and the bent then given is seldom much altered." Upon this I ask, Is it better to give him a superficial knowledge of his future profession, and occupy his mind about his coming work, or to let him idle away his time, to imbibe a love of billiards, a love of the evils attending horse-racing, to become a *connoisseur* of wines, spirits, and cigars, to show pride in dress and manners, or perhaps the very reverse? I say activity for mind and body, upon the right path, is the true course to steer.

The whole question turns upon the pupil's own character, aspirations, and abilities, more than upon the grooves into which he is worked. Exceptions on both sides occur.

A man who has not seen practice, and gets his diploma, either has to be a slave to a "successful" practitioner, or start for himself, and perhaps make a mistake which may injure him for years.

A young man will not set his "seeing practice" above his college education, unless he is taught to do so.

Mr. Hunting's letter seems rather to assume the fact that there are but few suitable tutors in the whole profession; he deprecates the rank and file of the profession as unfit to receive pupils; and not only does this, but stoops from his dignified position to be sarcastic upon their horses. Surely these are without the pale of the apprenticeship question.

Our profession, like many others, has its quota of characteristic men. Some are content to earn a mere livelihood, and some are only just able to do so. Some are unable, and some unwilling to record experience; some have the best opportunities for doing so, but prefer to let their experience die with them; while there are some who strive, by self-exaltation, to abrogate the necessity for earnest, steady work.

I am, sir, yours obediently,

CHARLES SHEATHER, M.R.C.V.S.

To the Editor of the VETERINARY JOURNAL.

SIR,—With your permission, I should like to write a few words in reply to Mr. Hunting's letter on the above subject. I will begin by asking your

* We regret this is not so. A majority of the Council of the Royal College of Veterinary Surgeons has fixed the age at twenty years.—ED. *V. J.*

readers to peruse my remarks, having before them Mr. Hunting's letter in the current number of the Journal. First let it be noted that the said letter is divided into ten paragraphs. In the first paragraph the writer says he thinks the apprenticeship scheme is "a mistake and retrograde step," but admits that "it is made with a view to the advancement of the profession." These two quotations show that there are those who honestly doubt, and those who believe in the scheme: in other words, it is a matter of opinion. With regard to the remainder of the first paragraph, Mr. Hunting postulates a prediction on an opinion—*his* opinion. This I leave to the tender mercies and judgment of every one who may read it.

The second paragraph may be divided into two subjects:—1. There are few veterinarians fit to show a student practice. 2. The acquirements are roughly enumerated which a lucky student, during an apprenticeship, may master. The second of these heads I will answer by the narration of a little personal experience. When I had been two years an apprentice, one of my master's horses was taken ill. It happened that he also was ill, whilst it also happened that we had with us a "qualified" M.R.C.V.S., who had come to see practice. A message came from the sick-chamber that the case in the stable was to be treated by me, and by me only, whilst the "qualified" one was to go at once seven miles away, on another occupant of the stable, to see a case.* By this I took it that No. 10, Red Lion Square, said Mr. *Snooks* was qualified, after putting to him a series of questions; whilst No. 10, Kirkgate, Ripon, said he was not, after seeing him among sick animals for three months. The writer's remark comparing the educating capabilities of the veterinarian with those of "a horse-dealer or large farmer," is of the same nature as the one I have drawn attention to above, the unfitness of *most* veterinary surgeons to receive and impart practical knowledge to students. Mr. Hunting goes on to say that "the strictly professional knowledge obtained in a two-years' apprenticeship served by a boy without any college teaching, can be picked up in six months by a man who has worked one session at college." Now, sir, I was twice connected with a most excellent college, once as a pupil for two years, and again as a teacher one year; and yet I never saw the magic wand with which students were so wonderfully transformed. I think I saw that college duties, and general practice duties, were as unlike as light and darkness; as near as I could judge of the relationship, it was on a par with teaching a man nautical astronomy in order to fit him to ride a horse on a starlight night, guided by the stars. But how about sitting the horse? In the language of Mr. Ruskin, if I may stoop, "What in the devil's name" is there about a veterinary college, that men hunger and thirst after getting to one? Is it its class-rooms? Its benches are wood and iron; its diagrams are paper; its blackboard is wood or slate! Is it its chemical laboratory? This is kept locked. Mr. Student, you may go to any pump you like, but you don't get to my air-pump: be acid about it if you like, but you don't get to my acids. Is it the dissecting-room? If so, it must be the uncommonly strong tables, for there are plenty of stools out of a dissecting-room that would bear a student as big as a claimant; and tables can be procured for any out-house by any village joiner. Is it the specimens in the museum? Is it the knowledge possessed by the professors, which they have kept to themselves and never divulged? Is it the blacksmith's shop? What is the wand, and where is it kept? I think Mr. Hunting is bound to tell us how veterinary colleges so transform young men, that, given two equally-endowed youths of nineteen summers, one being with a general practitioner (*carefully chosen by the interested friends of the pupil*, Mr. Hunting; and the friends of pupils are not all quite such fools

* Afflicted with nothing particular.

as you would make them appear) for eighteen months ; and the other coming fresh from a veterinary college, where he has been an industrious student also for eighteen months—you are bound to tell us how it is (if it is) that at the end of the second year both will be equal in horse-casting, colt-tying for emasculation, firing, blistering, medicine administering, "drug-mixing," cattle-setoning, bleeding, foot-searching, lameness detecting, and ten thousand other things which can only be mastered by repetition (and the repetition can only be practised on cases, and cases must "turn up" before they can be practised on ; and this, again, requires time—for cases don't rain with vets. as they may be said to rain in our out-patient departments of human hospitals). But perhaps the things I have enumerated are not "strictly professional knowledge" ; perhaps it is blacksmith's knowledge I have been instancing.

I have only time, and you will only have space for me to pick out the peculiarities of the remaining eight paragraphs.

In paragraph three, Mr. Hunting says :—"Success does not depend upon professional skill." To this I can only reply by asking on what does it depend.

Paragraph four states that "utterly unfit men will receive pupils," etc. To this I add an addendum—*the sons or wards of born fools.*

Paragraph five denounces me and all others who have served an apprenticeship. I "had seen practice" and "only wanted the theory" when I went to Clyde Street. Mr. Hunting was a contemporary of mine, I think, and was at the then "New Veterinary College," in the Caledonian Road. Alas! what a contrast! I in Clyde Street, "with a mind imbued with many crude ideas," Mr. Hunting under the skilled wand at Gamgee's Institution, with an unsophisticated mind.

Again—hopping into paragraph six—there I was, with "a mechanical notion of disease," "satisfied if I could give a group of symptoms a name," "content to term a mixture of drugs a cure," "forced into a rule-of-thumb groove, out of which it is not easy to rise."

In paragraph seven, Mr. Hunting enlightens us on the nature and acquisition of experience, before telling us that disease is an "object," "a series of events," "no two cases are alike."

Paragraph eight tells us "that the student fresh from college may have imbibed theoretical fallacies, but he is able to correct these (false theories) by the test of experience." I quite agree with Mr. Hunting in this ; but I ask a rather ugly question : At whose expense does he correct his false theories? Why, at the expense of those who employ him for the first eighteen months!! Finding the "grooves" requires time, and takes valuable lives, if the grooves are not pointed out by one who has himself found them, and who is in them working for his daily bread. The round pegs, so elaborately described as fitting into round holes by a college-teacher, are all very well, but the round holes have to be found ; and these "qualified" men (who have not *seen* the things they are labelled as qualified for being able to do) no sooner leave the college walls than they find that there are no such very round holes for the very round pegs after all. But the student from the college possesses "professional skill," Mr. Hunting says. If he has not even *seen* the objects of it, then he can only possess it in imagination. To this I reply that it is a very easy thing to throw down a colt and castrate him—in imagination—by one who has seen a diagram of the colt already roped and tied on his back, and has read about the application of the knife, clams, iron, etc.—very easy!

Paragraph nine, again, protests against sending a boy to "drug-grinding and watching phenomena he cannot understand." To this I reply that medicine and surgery, especially the veterinary branch, makes ten calls on manipulative skill to one call for philosophic observation, and the manipulative

skill requires practice, whilst perfection in it implies repeated failure, excusable in a 'prentice lad, but a deadly sin in one labelled "qualified."

Lastly we come to paragraph ten, in which Mr. Hunting stultifies himself by saying that the profession is "rich in men conspicuous for their common sense and tact, for the correctness of their intuitive diagnosis," etc. Compare this with paragraph two, which says only here and there may be found a man "whose practice is worth seeing." But if, as Mr. Hunting says—and I quite agree with him—the profession "is poor in men who record their experience," what stronger argument can there be in favour of youths *going to* the sources where they can receive the tuition which the professors object to, or neglect to record?

The value of apprenticeship is much discussed among the heads of the medical profession to-day, and has been for some time past; and the best men *now and always* have advocated it in some form before a student receives his "license to kill;" for it is none other than a license to kill, when handed to one who has not even *seen* the afflictions he is warranted to detect and relieve—for he does not see a fourth of them in a hospital. This argu ment obtains still more with the veterinary branch of the profession; for it is quite impossible for two men or three—the number of veterinarians on the staff of a veterinary college—to show a hundred students real practice.

I trust I may hear of the R.C.V.S. recognising the fact that examinations can never really test the extent and soundness of a student's fitness to practise the craft; and when once this is admitted, I have no fear that a certificate of apprenticeship, or a certificate that a minimum amount of real practice has been participated in, will be demanded before it dubs a man "qualified."

I am, etc.,

WILLIAM FEARNLEY, M.R.C.S., M.R.C.V.S.

London, *Oct.* 15, 1880.

THE ARMY VETERINARY DEPARTMENT.

To the Editor of the VETERINARY JOURNAL.

SIR,—In last month's issue of the VETERINARY JOURNAL, your correspondent, "Pferd," attempted to unravel the mystery of the unpopularity of the Army Veterinary Department; but from some of his remarks it appears to me that he was not, at the time he wrote, quite acquainted with some of the more recent regulations affecting the junior members of the department—I mean those who have entered the service under the "ten years' rule" of the last Royal Warrant. Perhaps "Pferd" is in India, which would account for this apparent ignorance. I, like him, am not a "ten years' wallah;" but, unlike him, do see a great deal of ground for complaint by these officers. In the first place, they suffer a grievous injury by the last interpretation of one of the terms under which they entered, viz., that having completed ten years' service, they may be selected for another ten, but, to use a forcible expression, "kicked out" after twenty of the best years of their lives, and when they are almost too old to begin again: receiving the paltry sum of £1,600 in lieu of pension. Any other officer in the service commuting his retired pay at twenty years, receives more than this. No young veterinary surgeon in full command of his senses will enter a service in which he is liable to be treated in such a niggardly manner; and if this regulation is to apply to those who entered before its introduction, then they have grave cause to be

dissatisfied, and to complain against such an unjust innovation in the terms of the warrant.

With regard to other points in "Pferd's" letter, I do not wish to say anything, except that I think he is mistaken as to quarter-masters and riding-masters being eligible for presentation at Court. They used not to be, and I am not aware that the rule has been cancelled.

I have written this simply to counteract, as far as I can, any mischievous effect which "Pferd's" remarks may have upon intending candidates for the Army, and to place before them a few facts already known through your columns to your readers, but apparently unknown to your correspondent, who, however, may not yet be aware of recent changes at home.

I am, sir,

Yours faithfully,

UBIQUE.

ARMY VETERINARY SURGEONS.

To the Editor of the VETERINARY JOURNAL.

DEAR SIR,—Although you hold Her Majesty's Commission, I do not hesitate addressing you upon this subject, as I feel assured you will take the observations I have to offer in the spirit of fair play. It has been remarked by some correspondents that army men have been in the habit of intruding upon private practice, to the detriment of local practitioners.

Doubtless, some gentlemen do so, but I do not believe they are in the habit of receiving fees for the same. Whether they are compensated or not for their services, it matters not to a veterinary surgeon, simply from the fact that the local man loses a patient. It may seem to be hard lines for an army veterinary surgeon not to be permitted to do a stroke of business for a friend or acquaintance where he is stationed with his regiment, or battery, as the case may be.

It is universally known that army men do occasionally examine horses as to soundness for a friend, without fee or reward. And it is also well known that they prescribe, and perform operations upon the lower animals. It may be well to look somewhat closely into the circumstances of the army man. He is stationed in a garrison town, is a bachelor, fond of society, and is well-educated, and endowed with something more than his pay to live upon. He has the means of keeping a horse or two, which he uses in the hunting-field. (I believe he is allowed forage for two horses.) He becomes an honorary member of the club by virtue of his commission; he sports scarlet when out with the foxhounds; and I need not add, he is received by a great many county gentlemen as one of themselves; while he takes especial care to spend the most of his time at the club, so that he has every opportunity of making himself known to the members of his club, and no doubt there are some who will "*talk shop*" with him if it suits them. *I know, from personal experience, that what I have suggested does in reality take place.* I know, also, that horses are examined as to soundness by them, which should fall to the lot of the veterinary surgeon established in the town.

Ought such things to be allowed? I was conversing with an officer of high rank, but a short time ago, upon this question, and he agreed with me that army men would do better to attend to their *own* duties, than to interfere with the private practitioner; and he added that his impression was, that when a veterinary surgeon entered the army, he invariably *forgot his profession*, and aimed at being a *gentleman*—in short, he declared his firm belief that many young men, on becoming veterinary surgeons in the army, pitched their profession at once.

This having fallen from the lips of an officer holding a high rank, caused me to reflect upon it, and look closely to it. I would not make these observations unless I had been frequently *acting* for army men. It would be considered a breach of faith were I to tell tales out of school, but I could relate many things which have fallen under my notice which would not redound to the credit of those I served.

I may, however, state that there are many things done in the army that would damn a private practitioner. I have known cases to have been reported for month after month up to *twelve months*, and the patients in the sick list all that time, which have been restored and returned to duty within a month by the acting (civilian) veterinary surgeon. This assertion may appear extraordinary, nevertheless it is true!! Were I to state where I practise, it may be the means of causing much inquiry as well as unpleasantness, which I am not desirous of doing, but I cannot refrain from giving expression to my feelings of indignation at army veterinary surgeons interfering with private men, when stationed in garrison towns. I do not think an army veterinary surgeon would feel comfortable if he were aware of the remarks which are made by some gentlemen he occasionally meets at his club. One thing appears clear, that if an army veterinary surgeon calls upon a local veterinary surgeon to act for him in his absence without fee or reward, he should do all in his power to aid him in his practice.

"ONE WHO SERVES OCCASIONALLY."

[For the reason stated at the commencement of his letter, we allow the "One who Serves Occasionally" to relieve his feelings by attacking his army colleagues under *a nom de plume*; though we can assure him that by this subterfuge, and the charges he brings forward, we do not receive his observations in the spirit of fair play. He maligns a body of gentlemen, and makes strong and unfounded accusations against them, without giving them an opportunity for defending themselves or knowing who their accuser is. This is not what we consider fair play on this side of the Irish channel.

If the charge of incompetency the writer prefers against army veterinary surgeons were truthful, there would be no occasion for his communication. Such a competent civilian need have no fear of interference from men who are so worthless. Perhaps he is not aware that candidates for the Army Veterinary Department, already graduates of the Royal College, have to undergo a most severe examination of a practical character, and such as no civilian is submitted to; and that about fifty per cent. fail to pass. Other qualifications than professional are also demanded from them, to ensure their fitness for their position. Above all things, they must be fairly educated, and they must be gentlemen. Expulsion from the army is the fate of any officer who does not conduct himself as a gentleman. We had no idea that being well-educated and a gentleman was any disadvantage to or reflection upon veterinary surgeons, though the writer would lead us to infer that it is so. He should know his own position best. We fancy the "officer of high rank," must have been "taking a rise" out of the writer, on this matter of veterinary surgeons *aiming* at being gentlemen. At any rate, it shows what *his* impression is with regard to the members of the profession he comes in contact with, and certainly his opinion as to army veterinary surgeons is the opposite of scores of officers of high rank.

There is no regulation prohibiting army veterinary surgeons from seeing cases of disease, prescribing, or examining horses as to soundness, outside their own immediate sphere of duty.

We strongly deprecate the silly attempt to stir up animosity between civilian and army colleagues. If charges of incompetency are made against

the latter, they will also certainly be preferred against the former. The history of veterinary medicine proves that army men have certainly not been behind their brethren in civil life, in maintaining and promoting the scientific and social standing of our calling.

We hope the rancour and *animus* apparent in our correspondent's letter will not lead to the retorts which they have a tendency to excite.]

A FEW WORDS CONCERNING A CUTANEOUS AFFECTION AMONG CAMELS IN AFGHANISTAN.

To the Editor of the VETERINARY JOURNAL.

SIR,—Since the commencement of this campaign, several articles have been published in India relative to the history, habits, colour, height, length, tastes, etc, etc., of the camel; manuscript productions, by various authors, have been officially circulated for the information, as we term it, of the officers commanding corps, of officers in charge of transport animals, and of veterinary surgeons; but in all cases the diseases from which the beast may suffer do not appear to have attracted much attention. There is one never omitted, I allude to "Itch"; but from the vague way in which it is referred to, it may be anything—from a pure parasitic disease to ordinary irritation of the integument or Prurigo. It certainly does not always present the same features, and the natives themselves, men of experience among their own peculiar charges, distinguish two distinct kinds, viz., pure mange or parasitic disease, and an ordinary non-parasitic affection.

It is one of these, I know not which, that is giving me at present a great deal of trouble. Nearly every camel in the transport of this division is suffering from the affection; the other animals are free, entirely free from it. To give an idea of the strength of the transport department of this division, I append the numbers as made out officially on the 5th July:—Camels, 3,200; Mules, 1,481; Ponies, 381; Bullocks, 115; Donkeys, 836; total, 6,013.

The camel-drivers, practical men, are so imbued with the serious nature of the effects these diseases produce, and without being able to distinguish, for certain, one from the other, that regularly once a year all the animals—whether suffering or not—are by them, as a preventive measure, put through a general course of treatment. This is, from all accounts, highly successful, and consists in so many days' rest at springtide, with the administration internally of oleaginous matters, and application externally of Tara Mira Oil. I simply, without weighing the value of the treatment, state a fact; though I have myself witnessed, during my six years' service in India, more than one case of "Prickly Heat" treated with success by means of Tara Mira Oil.

Such treatment as that applied by the natives has of course under the circumstances—*i.e.*, during our march from Candahar to Cabul—been out of the question, if not utterly impossible; so that, in accordance with annual experiences of those well acquainted with the camel, it is not in the least astonishing this disease, to which I cannot append a name, should have broken out among the 3,200 beasts attached to the force. Whether they huddle together in the lines, crawl slowly along under their loads, or journey lazily towards their daily grazing-grounds, those troubled with the affection are easily recognised as they twist their long elegant neck and head from one side to the other in order to scratch, nibble, or bite in turn the different seats of irritation; or again, much like a dog with chorea, throwing first one fore-leg, and then the other, in a spasmodic manner to the front, with a

view, I presume, of shaking off the supposed unwelcome visitor; or others, as they progress, are seen rubbing one thigh against the opposite one with the same object.

A more attentive and closer examination does not enable one to recognize any characteristic symptoms; the principal being a peculiar rough, irregular aspect of the integument in several regions where it is thin and delicate, as in the axillary, scrotal, perineal, and inferior surface of their short tail, although, as indicated by the frequent attempts made to scratch the various parts with both teeth and feet, or by rolling on the ground, there is but little doubt the irritation, whatever the cause may be, exists in nearly every region of the body. At this period of the year (July) the animals are unprovided with that coarse hairy coat with which they are generally depicted; their skin is smooth to the touch, and in the majority of cases shows no traces whatever of disease, except in the regions above mentioned, beyond being rather dry and harsh—a state to be accounted for when the nature of the work performed and forage provided are taken into consideration. The parts of the body I have before enumerated are covered with a layer of hard, dry, brittle cakes, easily detached by friction, of a lightish-brown colour, of various shapes and dimensions, and of which I forward you a specimen for examination. These are the only features of an affection which I feel sure is of such an irritating, harassing nature as to account, in a great measure, for the low condition our animals are in, *malgré* the light work and very fair feeding they have been treated to, since our arrival in the Logar Valley, or since about the 1st May. It should be well understood that the camel, far from being the hardy convoy-carrier as stated in the stories of our youth, is a very delicate, tender beast of burden, only calculated to perform a certain amount of work at a very slow pace, not suited to accompany any army.

With the means at my disposal, viz., a government microscope, provided with a solitary slide and no cover-glass, I have frequently examined the matter carefully collected, and have, except on one occasion, failed to find any parasite among the *débris*. I herewith attach the drawing I made of it. The native remedies employed do not appear to produce very good results. With a knowledge of the nature of the disease, and the necessary medicines for its treatment, it would, of course, be easy to apply the remedy. I may mention, *en passant*, that no regular provision has been made for the treatment of transport animals; and although in charge (veterinary) of 6,000 animals, beyond a dram of Calvert's carbolic acid, a skin of some indigenous kind of oil, and a keg of vinegar, I have nothing whatever in the way of medicines. There is not even a case of instruments. My stock in hand, obtained with some difficulty from the authorities, is at present in the open air, behind my tent, under the shade of the unprotected battery veterinary medicine chests. It is hard to perform one's duty when so little assistance is received from the authorities. But our trials are nearly over; our departure from this country is nigh. Nevertheless, I trust this rambling letter, written amid the noise and bustle of a divisional camp, will, with the assistance of your microscopical examination, Mr. Editor, be of use to those who are destined to serve in a country where camels are extensively employed; but, from whence, at present, *vu l'absence* of all honours, recompenses, even recognition of our services, if only by means of a few words that would certainly not cost the authors or compilers of despatches much, all veterinary officers will be only too pleased to escape. From the absence of any mention of veterinary officers in the numerous and voluminous official papers from time to time published, one would imagine there were none attached to the force!

If what I have written appears to possess any interest to the members of

the profession, I shall be pleased if you will find room in your valuable journal for its insertion.

Camp, Zurgundshah, Yours truly,
North Afghanistan, *July 27th.* C. CLAYTON, R.H.A.

[No material for examination has ever reached us from our correspondent. The drawing he enclosed certainly represents an acarus. We have already commented on this cutaneous affection among camels, in Mr. Clayton's previous communication.]

SOAP AND WATER.

To the Editor of the VETERINARY JOURNAL.

SIR,—I write to contradict the insinuations thrown out by your correspondent, "Hygeia," with regard to the cleanliness of the students at the Royal Veterinary College. About students at other institutions I know nothing, but I am sure that if they are as well dressed and tidy as the present veterinary students, they will not disgrace the profession or the college to which they belong.

That there are some not so well dressed as others, I do not deny; but it is no fault of their own. "Poverty is no disgrace to any one." Nevertheless, even the worst of these are always clean and tidy. "Hygeia" suggests that it would be better if the students were to spend less money in beer and whisky, and give it to the laundress. Now it is just the men who spend this money in whisky, etc., that are dressed the best, and therefore that have the most frequent change of collars, etc.; for the others, not having the money to spend, keep themselves quiet, and endeavour to get through their examinations as quickly as possible.

"Hygeia" says that "for veterinary students at least, there is no excuse for want of cleanliness." I don't know why we should be thus particularized, for surely our work is as dirty as at other colleges or hospitals. Practical chemistry, hospital practice (giving draughts and balls, etc.), dissecting and shoeing, are not duties that will allow us to keep our cuffs and collars as white as snow, even for one day; and if the professors happen to see a student frightened of getting his hands or clothes soiled, they are not very backward in telling him of it.

In order to meet with "Hygeia's" views, we must certainly have a "Faulkner's establishment" in the college, so that we may have a wash and brush-up about every half-hour; and it will be necessary for us to have cabs to convey us from our lodgings to the college in muddy weather, or we shall soil our boots in crossing the roads, and in all probability get our collars splashed by a passing vehicle, which will render us untidy for the rest of the day.

I know that the fact of some students not wearing black coats and waistcoats when presenting themselves for examination, was a great eyesore to the late Secretary of R.C.V.S., but it is never the student's fault that they are not so dressed. Their means will not allow them to have clothes to lay by, and so they are compelled to wear such as will serve them the best for all-round purposes.

It is against all reason, however, that any students should go before their examiners with dirty collars and cuffs on, and with dirty faces, as "Hygeia" would have your readers believe. And I need hardly say they do not do so. I can only say, in conclusion, that I am sorry that "Hygeia" could find nothing better to employ his time than writing the exaggerated, not to say delicate, letter headed "Soap and Water."

Yours obediently,
R.V.C., *October 12th*, 1880. "AN INJURED STUDENT."

To the Editor of the VETERINARY JOURNAL.

SIR,—Your longsuffering correspondent, "Hygeia," has, in the October number of your valuable Journal, done well in complaining of the way in which many students neglect soap, water, and clean linen. Those who have had opportunities of seeing the different colleges, say that a reform is much wanted in Edinburgh and Glasgow—an improvement in cleanliness; which, however, to be effectual and permanent, should be insisted upon and kept up by the principals of the schools. No subordinate professor can hope to do it, the impetus should come from the principal. "Hygeia" has truly said, that for students to be seen, either at lectures or elsewhere, in a dirty state there is no excuse. Depend upon it, any faults have only to be noticed by the responsible professors to prevent the necessity for further censure. There are three veterinary colleges in Scotland and one in England, which, in teaching, profess a worthy rivalry. Let them also institute a rivalry in manners, and begin by insisting upon the use of soap, water, and clean linen. It cannot be too often repeated that a dirty appearance is disgraceful to the individual, and to the institution to which he belongs; and the only wonder is that professors have so long permitted examples of it to insult them. The veterinary colleges might for once take the lead in a much-needed reform.

Yours obediently,

October 14th, 1880. "SANITAS."

COMMENTS.

JUSTICES' justice is sometimes not only incomprehensible, but cruelly unjust. This may be due to ignorance, partiality, or sentiment, from which magistrates are no more exempt than other poor mortals. One of the most glaring instances of unfairness and magisterial cruelty has been recently reported in the daily papers; and we would direct the attention of the profession most earnestly to it, as a case in which the unjust dispenser of justice should be made to feel that he must not dare to blast the reputation of a practitioner without good cause. We would advise Mr. Mole to place the matter in the hands of a solicitor, for surely there must be redress for such a gross piece of defamation. From the report which we give, it will be seen that a conviction did not follow, and that the evidence showed the now almost always inevitable conflict in professional evidence.

THE MAGISTRATE AND THE VETERINARY SURGEON.—*Henry Mann*, carman, and *George Richardson*, horse-keeper, in the employ of Mr. Robert Hartley, yeast merchant, of Norway House, Lothian Road, were summoned before Mr. Newton, by the Royal Society for the Prevention of Cruelty to Animals, the first-named for cruelty to a horse, and the other for causing it.—Inspector Frederick William Robinson, of the Royal Society for the Prevention of Cruelty to Animals, stated that on the 1st inst. he was in Piccadilly, when he saw Mann driving a horse attached to a cart laden with tubs. Witness asked Mann if he knew the horse was lame, and he replied that he did. Witness afterwards went to Camberwell with Mr. Stanley, veterinary surgeon, and saw the horse-keeper, and on asking him whether he knew the horse was lame when he sent it out, he said he did, and that it would not have been sent out but that other horses were sick. The horse's off knee was much swollen, full of inflammation, and it was dead lame, it being an act of cruelty to work it.—Mr. F. T. Stanley, veterinary surgeon, Stone's End, said the horse was very lame from disease of the foot and from ossification of the knee, perhaps through an injury; otherwise the animal was in good condition, and he did not think it would get any better.—For the defence, Mr. William Mole, veterinary surgeon, of Rodney Row, Walworth, stated that he considered the horse was suffering from rheumatism, and although he knew it to be lame, he permitted it to go out—it having been laid up for some time—to go a short journey. He could not say the horse was sound, or that it

ever would be, but he did not consider there had been any cruelty.—Mr. Newton remarked that after what he had heard he could not convict, but he would advise Mr. Hartley to change his veterinary surgeon; he (the magistrate) did not envy any one who employed him, and he wished that to be publicly known. The summonses were dismissed.

TO CORRESPONDENTS.

V.S. (Edin.).—Gant's Surgery is about the best and most recent. Mr. Fleming's promised work on Special Veterinary Pathology and Therapeutics is in abeyance for the present, as he is now preparing for the press a manual of Operative Veterinary Surgery, which will soon be ready for publication.

Owing to press of matter, a number of communications and letters are held over until next month.

CORRIGENDA.

At page 249, line 35, for "Tower of Babel" read "Tower at Babel"; at page 250, line 11, for "contravert" read "controvert"; at page 255, line 3, for "cancer of the human patient" read "cancer of the equine race"; at page 256, line 36, for "puss" read pus"; at page 257, line 3, for "puss" read "pus"; at page 256, line 28, for "organic constitution" read "inorganic constitution."

Communications, Books, Journals, etc., Received.

Communications have been received from W. T. Kendall, Melbourne; P. R. Gordon, Queensland; J. H. Cox, Bellary, India; R. W. Burke, Warwick; C. Clayton, Army Veterinary Department, Afghanistan; Messrs. Russell and Wartnaby, Grantham; "G. A. B.," London; J. W. Hill, Wolverhampton; "An Injured Student"; G. R. Dudgeon, Sunderland; C. Sheather, London; "Ubique"; S. Locke, Manchester; A. R. Charles, London; "Sanitas"; G. Kidney, Belfast; J. Nunn, R.A., Punjab; "Apropos"; W. Mole, London; E. Wooler, Darlington.

Books and Pamphlets: *F. S. Billings*, On Trichinæ in Relation to the Public Health; *T. W. Mayer*, The Fluke Disease; *L. Brouwier*, La Viande de Cheval utilisée à l'Alimentation de l'Homme; *J. H. B. Hallen*, Resumé of Horse and Mule Breeding Operations in India; *Free Lance*, Horses and Roads.

Journals, etc.: *Annales de Méd. Vétérinaire; American Veterinary Gazette; Archiv für Wissenschaftliche und Practische Thierheilkunde; Der Thierarzt; Bulletin de la Réunion des Officiers; Repertorium der Thierheilkunde; Bulletin de la Société de Médecine Vétérinaire Pratique; Wochenschrift für Thierheilkunde; Archives Vétérinaire; American Live Stock Journal; American Veterinary Review; Medical Press and Circular; Lancet; Farmer; Mark Lane Express; Agricultural Gazette; Journal de Méd. Vétérinaire; Il Medico Vétérinaria; Recueil de Méd. Vétérinaire; L'Echo Vétérinaire; Medical Times and Gazette.*

Newspapers: *Army and Navy Gazette; Irish Times; Scotsman; Melbourne Weekly Times; Dublin Express; Pall Mall Gazette; Norwich Mercury; Glasgow Herald; Durham Chronicle.*